THE

MEDICAL AND SURGICAL REPORTER.

WHOLE SERIES, NO. 209. } PHILADELPHIA, OCTOBER 20, 1860. { NEW SERIES VOL. V. NO. 3.

ORICINAL DEPARTMENT.

LECTURES.

Lectures on the Crystalline Lens and its Diseases.

No. 2.

Delivered at the Howard Hospital,

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DIAGNOSIS OF CATARACT, CAUSES, AND PREPARATORY TREATMENT.

In my last lecture, I entered upon the position, size, specific gravity, nature, injuries, and diseases of the crystalline lens, concluding my hour by referring to the diagnosis of cataract, a matter of the utmost importance to your future success, which I intend entering upon more fully at this time. I cannot do better for you than by relating briefly two cases. The first was a young man, who was sent me by a physician, and in the note which he brought with him, the case was described as one of *amaurosis*. This was the third physician who had had him under charge, and, I am sorry to say, had looked at his eyes, but not in a proper manner. The pupil was perfect, the eye natural, but vision very defective; no apparent opacity was at all visable to the unassisted eye, he had "muscæ volitantes" of a reddish color constantly floating before him; he was incapable of attending to his occupation, and was very much depressed in mind, owing to the unfavorable prognosis before given him.

Upon dilating the pupil with atropia, and examining the eye with a double convex lens by the light of a candle, all doubt at once was removed, by finding a beautiful cataract, still imperfectly formed, which could be removed by an operation. To be absolutely certain, (which we ought always to be if possible,) I examined him catoptrically, according to the method of Purkinje, and as this is one of our most essential aids in diagnosis, I will describe it. Having dilated the pupil of the suspected eye by means of the extract of belladonna, applying it in a soft state on a piece of muslin around the forehead of the patient, the night before, or the solution of atropia, dropped into the eye half an hour prior to the examination, and causing the patient to shut the eyes until the time has expired—the surgeon and the patient should be placed in a room, from which the daylight is entirely excluded; the patient should be seated on a stool or chair lower than that of the examiner, so that the observer may look down into the eye; a candle is to be employed which burns steadily, shaded by the hand of the examiner, that its light may not fall into his eyes.

When a lighted candle is thus held before a healthy eye, at the distance of a few inches, three reflected images of it are seen, placed one behind the other. Of these, the anterior and posterior are erect, the middle one inverted. The anterior is the brightest and most distinct; the posterior, the least so. The middle one is the smallest. The anterior is formed by the cornea; the middle by the posterior surface of the capsule and the crystalline lens; the posterior by its anterior surface. The cornea being a *convex* surface reflects an erect and diminished image, which moves in the same direction as the candle when this is carried laterally. The anterior crystalline capsule, being also convex, reflects a similar image, being, however, larger, but paler; while the posterior crystalline capsule being a concave surface, the image reflected from it is inverted, moving in a direction opposite to that of the candle, and is the smallest of the three. It may be proper for me at this time to state the optical law which relates to this

phenomenon, for the benefit of the more youthful part of my audience, namely, that instruments like the eye which operate on light by *refraction* are termed *dioptric*, and those which operate on light by reflection are termed *catoptric*.

In cataract, the superficial erect image which is formed by the cornea suffers no change, but obliterates the inverted image, even at an early stage, and renders the deep erect one, very indistinct.

'In estimating the changes which occur in the appearances of the images reflected from the eye in its several diseased states, it is necessary, as Dr. Staberoh has remarked,* to take into account two sources of these changes, viz: the state of the surfaces which form the images, and that of the media through which we see them." These two sources of error can be overcome at the present day by another most valuable and all-important aid to our diagnosis of cataract, viz: the ophthalmoscope. Its importance in diagnosis will be illustrated by the second case.

J. T., aged fifty-one, a man of wealth from one of our Southern cities, was brought to my office for the purpose of consultation, by a physician of this city. A distinguished and learned surgeon had pronounced his case as one of *cataract*, and he had given him a solution of atropia to keep the pupil dilated. The subjective symptoms in his case had been in active operation for six months, he, at that time, having tried his eyes with close and constant writing by the gas for some time, causing his vision to become much obscured in the left eye, and great lachrymation and pain on exposure to light.

The objective symptoms were those of chronic conjunctivitis with pterygium on the nasal side, several large muscular vessels passing into it, a few straight vessels running from the sclerotic to the cornea. On examination of the cornea, it was seen that there had been a certain amount of inflammation, causing the gray line around its circumference.

On examining by oblique illumination, by means of the double convex lens, nothing was found abnormal in the cornea, anterior chamber, capsule of the crystalline, or the lens itself. The catoptric test was also resorted to, and all the images were found perfect. The confirmation of the above was to be found in the use of the ophthalmoscope, which is to be employed, with a faint light, when we examine cases of cataract; for if the full flame of a gas burner is employed, the intense light renders very faint striæ invisible, and dense opacities appear as radiating black lines. But, to return to our case, a slightly diffused haze was found apparently in the vitreous humor, the entrance of the optic nerve was normal, and the retina presented a slightly-congested appearance, owing, perhaps, to the result of the long continued examination. Thus, the opthalmoscope at once sets at rest the cause of the opacity in the eye, by showing where the disease was situated.

We will now continue the subject of diagnosis, having described the means of arriving at such an important result by its application to two cases.

Subjective or physiological signs, abbreviated from Mackenzie:

1st. Impaired vision in cataract generally increases slowly for a time, and is compared to a mist, fog, or gauze, gradually becoming thicker, until everything seems concealed by it, or enveloped in it.

2d. The sensation of a mist or cloud is perceived most when the patient looks straight forward, and he always sees considerably better when he looks sideways. This is not the case usually in persons over the age of forty years, but applies to cases previous to that age.

3d. In bright light which causes the pupil to contract, fewer rays of light enter the eye, and hence vision is obscured; while at twilight, or, with the patient turned from the light, vision is improved.

4th. On looking at the flame of a candle, or gas burner, the light seems expanded into a larger globe of weaker light.

5th. In incipient cataract, the patient sometimes sees with one eye objects multiplied.

6th. If the cataract is central, a solution of atropia assists vision, but if the opacity is in the circumference, he is not benefitted.

Objective or anatomical signs:

1st. The cataractous patient approaches you with his eyes shaded with his hand, and his head turned downward, and to one side.

2d. The pupil contracts and expands as extensively, and as vividly as in the healthy eye.

3d. The cloudiness in incipient cataract is whitish, or of the bluish tint of milk and water.

In a letter to the President of the Royal Academy of Medicine of Paris, in 1842, Malgaigne

* Medical Gazette, Vol. XXI., p. 107, London, 1838.

asserted the positive fact that in the cataract in adults and aged persons, the opacity always commenced in the circumference, gradually spreading toward the centre of the lens. This fact has been confirmed by observations of Stellwag, made with the additional advantages which the microscope affords. This highly important application of these observations made by an original observer, Mr. Dixon, was published in the *Lancet*, in 1852. An elderly patient presents himself, complaining of some slight mistiness and indistinctness of sight. The iris may be active; the area of the pupil of natural blackness. Cataract will not suggest itself to the surgeon, if he be prejudiced by believing that it almost always commences in the centre of the lens; and he will, probably, regard the dimness of sight as altogether of nervous origin. But let him fully dilate the pupil with atropia, and then throw light upon each part of the lens in succession, by means of a convex glass of about one inch focus; he will, perhaps, find the whole posterior face of the lens covered with faintly yellow, opaque lines, radiating inward from the margin, and along the latter part, grouped together here and there into patches; or these marginal patches may exist at one or two points only, the hinder part of the lens being, to a considerable extent, clear. This would denote a still earlier stage of the disease. Or, again, in addition to opaque patches at the edge of the lens, a few striæ may be traced along the front surface, stopping short of the border of the natural pupil. The anterior position of these striæ can, of course, be at once recognized by a practised observer; but it may aid the less experienced to be told that the opaque streaks of a cataractous lens are in themselves white. Those on the anterior surface, therefore, being viewed through colorless media—the cornea and aqueous humor—retain their white appearance; while those behind acquire a yellow cast, from being seen through the still transparent part of the lens.*

According to Dr. Mackenzie and other good authorities, the following circumstances should be attended to in cases of cataract, before performing any operation:

1. The opacity; its color, extent, form, and seat. Whiteness denotes either a dissolved lens or a capsular cataract; grayness, a lenticular cataract; amber, or dark grayness, that the lens is hard; light grayness, that it is soft. If the whole extent of the pupil is uniformly opaque, the cataract is lenticular; if the opacity is streaked or speckled, it is more likely to be capsular. Baer states that in anterior capsular cataract the stripes are of a bright-gray, chalky-white, or mother-of-pearl appearance. Capsular cataracts, as a class, are tough.

When the cataract is complicated with glaucoma, it has almost always a greenish or sea-green color, is exceedingly large, so as to project itself from the pupil toward the cornea, with flashes of light and constant headaches. These latter cases must not be operated upon, as the patient never regains useful vision, and is very liable to arthritic inflammation. A dingy color of the sclerotica indicates an unfavorable eye for operation. A stony hardness of the eye is also unfavorable.

Causes of Cataract.—Advanced age; unusual, sudden, and strong irritation of light on newborn or delicate children; working over strong fires; too free use of malt liquors or spirits; wounds of the eye and of the lens. I am convinced, with Baer and Walther, that the greater number of cataracts are the result of inflammation of the lens and its capsule. Cataract is often hereditary or congenital. In a family that I attended, three persons were affected, two brothers and a sister. In frogs, it has been produced by the injection under the skin of various substances, in solution, as sugar, certain salts, &c. It has been produced by pressure; and we know that after death pressure of the eye causes opacity of the lens. The increased imbibition of the dense fluid in the capsule of the lens pressing upon it may produce this result.

Disease of the heart is often complicated with cataract. It is apt to be witnessed in the scrofulous, syphilitic, gouty, and rheumatic diatheses; also in cases of diabetes mellitus.

Medical Treatment.—A cure of perfectly formed cataract by medicines, has been hitherto deemed impossible. Commencing cataracts, however, are supposed to have been cured, both in former and even in our own times, by mercurials, antimonials, digitalis, belladonna, and pulsatilla. The most recent article, which received considerable attention from the Surgical Society of Paris, was Gondret's ammoniacal ointment; but it was shown, during the discussion, that those cases which were benefited were not cases of incipient cataract, but instances of an early stage of amaurosis. The operation still remains the only tolerably certain means for the remo-

* See Ruete, pl. xxxi, Fig. 3.

val of this affection, if the case is properly selected and a correct diagnosis made.

Treatment Preparatory to an Operation.—If the patient is in sound health, no preparatory treatment is required, but if otherwise, we must endeavor to bring him into that condition, by every means in our power, and not operate until this object has been accomplished. The state of the digestive organs should be carefully studied, as nothing, according to Dr. Jacob, seems to require more attention than the state of the tongue, as indicative of the state of the stomach and bowels. If it be white, or coated with discolored adhesive mucus, the functions of assimilation and nutrition are probably imperfectly performed, and a resulting tendency to destructive inflammation from local injury is engendered.

This is seen every day exemplified in accidental injuries of the cornea in stone cutting, chipping, and turning metals. If the patient has a clean tongue, and is otherwise free from disease, little inflammation, and still less of a destructive form follows the injury: but if the tongue be coated, with a thick yellow adhesive layer, ulceration and formation of purulent matter often ensue.

In preparing a patient for operation for cataract, this will therefore demand the first care of the surgeon, especially if he finds, as he often does, a deposition of lithates or other salts in the urine. He will also make inquiry as to the state of the discharges from the bowels, as to their color, consistence, and proportion of undigested materials, and also as to the frequency of discharge, not looking upon what is called costiveness as evidence of deranged digestion, but rather the reverse, undigested food seldom remaining so long quiet in the alimentary canal as the insoluble remains of thoroughly digested aliment mixed with the excrementitious part of the bile. This inquiry is not, however, so easily made as those who are satisfied with loose statements, suppose, and many think it unnecessary; but Dr. Jacob is fully convinced that attention to this matter is necessary for the success of the operation. Dr. Jacob, in the Dublin City Hospital, where I saw him operate in the summer of 1859, relies upon a moderate purgative pill, with blue mass or calomel at night, followed by some aromatic bitter infusion, containing a little alkaline salt, in the morning and middle of the day; at the same time, regulating the diet by restricting the bauntity and quality of the food, as well as the periods at which it should be taken. It is usual, in preparing for this and other operations, to make great alterations in diet, substituting liquid for solid, and vegetable for animal aliments. This, however, must be done with caution, leading, as it inevitably does, to disturbance of the digestive functions and interruption of the assimilating and nutritious processes, if suddenly or exclusively adopted. Without digestible nutritious food, good chyle and blood cannot be produced, and without good blood, local injuries are liable to result in destructive inflammation. Even in the case of old persons, habitually indulging in a glass of wine or other alcoholic stimulants, Dr. Jacob considers the suspension of that supply of temporary aid to the nervous system, should not be suddenly adopted; in fact, the substitution of "low living," and what are called "slops," for generous diet, should be gradually and sparingly practiced, if at all. In his own practice, he resorts to it as little as possible, and from a long experience feels inclined to resort to it less and less.

In particular cases, the surgeon may be called on to prepare his patient by special directions of remedies to specific derangements of health. Persons of languid circulation and feeble frame must be invigorated by generous diet and tonic medicines, while those who are plethoric must be restricted in certain articles of diet, so as to bring the system into a perfectly healthy condition. Scrofulous, gouty, or rheumatic constitutions must, if possible, be corrected; but as this is not easily accomplished, it is always proper to inform the patient or friends that such cases are always liable to inflammation, and that recovery of useful vision is seldom obtained even after the most successful operation.

In my next lecture, I will take up the consideration of the operations for cataract.

An Indian Medical Journal.—By the last mail from India we have received a prospectus of a new Indian Medical Journal, entitled the *Akbare Tubabut*, or *Medical Gazette*. A specimen page, lithographed in Oordoo, is before us, and we are informed that the *Tubabut* is intended as "a medium of communication between native Doctors in Government employ and native Hakims, for the improvement of Medical and Surgical knowledge, and the greater alleviation of the many diseases to which the millions of inhabitants of this country are subject." We sincerely hope that it may succeed in the accomplishment of such desirable objects.—*Medical Times.*

COMMUNICATIONS.

Concussion of the Brain and Injury of the Pneumogastric Nerve.

By B. Woodward, M. D.,

Galesburg, Ill.

Claude Bernard took high ground when he enunciated the doctrine, "that most, if not all, forms of disease, depend on the irritation of the nerves."

Cases occur in the practice of every physician which, if closely observed, go to prove the general correctness of the assertion of the great physiologist. If this is the true doctrine of disease, it must, when well understood, have great influence in establishing a rational mode of treatment.

It is this view which leads me to give a history of a case in my own practice, as every well-established fact is of value in determining the correctness of a theory.

Ellen ———, servant in a family in this city, on the evening of the 30th of July last, fell from the top of a high flight of stairs into the hall below. In so doing, she struck her neck across the edge of the lower step. She was immediately picked up, and, as she did not breathe, was thought to be dead.

I saw her within a very few minutes after the accident. She was pulseless at the wrist; face, lips, and conjunctiva blanched; eyes and mouth open. Pressing my hand over her heart, I could discover a very slight and indistinct flutter, but no regular beat. I took the pillows from under her head, closed her mouth firmly, and taking her nose in my mouth, inflated the lungs fully, pressing on the thorax after every insufflation to expel the air. Keeping my hand on her heart, I found in about two minutes that the beat became distinct, and in about fifteen minutes she gasped slightly three or four times. It was half an hour before the pulse in the radial was perceptible, and two hours before she breathed without the artificial inflation. All this time the neck, which showed a dark red bruise all across the left side, from the edge of the stair, and the thorax, were well rubbed with stimulating liquids, and sinapisms were kept on the legs and arms. For twenty-four hours there was no perceptible motion of the diaphragm in breathing, neither was she sensible for a moment during this time. As soon as she could be made to swallow, hot, strong coffee and brandy were poured down her throat. Though breathing had been in a measure established within two hours from the time of the accident, it would be suspended at times for several minutes, and could only be re-established by inflating the lungs as at first. For twenty-four hours there was complete arrest of the urinary secretion, neither was she in the least conscious for the same length of time. There was complete aphonia for three days, and for two weeks partial, with dyspnœa and cough. It was four days before there was the least desire for food, though she took it in small quantities. She has since passed from my observation, having gone to her friends in another county; though I heard from her the last of August that she was very weak and had a bad cough. Previous to her fall she had been a remarkably strong, healthy girl. There was evidently concussion of the brain, manifested by the paleness of the countenance, and the insensibility. There was injury of the medulla oblongata, as shown by the arrest of the action of the kidneys; and injury of the pneumogastric nerve, paralysing the action of the heart, lungs, and diaphragm, and, to some extent, the stomach. The point of great interest to me is: the production of the cough, which was dry, hard and spasmodic. By the most careful auscultation and percussion of the chest, I was not able to find anything which should have produced it. The shock given to the nerves going to the larynx will account for the aphonia, but in what way did the nervous paralysis or irritation produce the cough? This is one of the points insisted on by Bernard; but the question with me is not so much the fact itself, as the mode or species of irritation, and whether it was expended on the lungs or diaphragm, or both?

There are points of interest in the case both physiological and pathological, which suggest themselves to every thinking mind; and perhaps you, or some of your readers, may think it worth while to throw some light upon them.

Spontaneous Combustion.—A disastrous fire recently occurred in Long Acre, London, caused by spontaneous combustion of lampblack. It is said that but a few drops of linseed oil in a cask of lampblack will cause combustion. If this is so, it is a fact important to be known that it may be guarded against. Merchants and others, who ship tarpaulins prepared with oil and lampblack, should be certain that they are thoroughly dried and seasoned before packing.

Dislocation of the Femur on the Dorsum Ilii of Right Side—Reduction—Fracture of the Upper Third of Tibia and Fibula—Laceration of the Left Foot and Popliteal Space—Death.

By W. B. ERDMAN, M. D.,

Of Millerstown, Pa.

J. Y., aged 50, while digging in an ore bed, was entirely buried by the bank caving in upon him. He was undermining, and the bank struck his left leg, and threw him down, burying him completely.

He was extremely prostrate from the shock and injuries received; there was hardly any pulse to be felt at the wrist. Although the patient lost some blood, the hemorrhage was so slight that there was no necessity of applying a tourniquet to the lacerated limb.

As the patient was in a very prostrate condition, the muscles were relaxed, and the dislocation of the femur was easily reduced by the admirable mode of reducing such luxations suggested by Dr. Wm. Reid, of Rochester, New York. It is certainly a great improvement on the mode of reducing dislocations, with pulleys, sheets, straps, and hooks, especially in a case like this, where the dislocation is accompanied with a fracture of the bones of the leg.

The following is Reid's plan, as described in the "Treatise on the Practice of Surgery" by Dr. H. H. Smith, (Prof. of Surgery in the University of Pennsylvania.)

"Reid's plan of Reducing a Luxation of the Femur upward and backward on the Dorsum of the Ilium, solely by Manipulation."—"Place the patient on his back, on a low, firm table, or, what is better, upon a quilt, folded and laid on the ground. Let the operator stand or kneel on the injured side, and seize the ankle with one hand and the knee with the other. Then flex the leg on the thigh; next strongly *abduct* it, carrying it over the sound one, and at the same time upward over the pelvis by a kind of semicircular sweep as high as the umbilicus. *Then abduct* the knee gently, turn the toes outward, the heel inward, and the foot across the opposite and sound limb, making *gentle oscillations of the thigh*, when the head of the bone will slip into the socket with a slight jerk, or an audible snap, and the whole limb will slide easily down into its natural position beside the other."

Stimulants were freely administered to the patient above alluded to, but no reaction took place, and he died in about five hours after the accident occurred. All the articulations of the bones of the left foot were lacerated and torn asunder; the blood vessels and nerves in the popliteal region of the same limb were all exposed, but without any of them receiving any injury.

Illustrations of Hospital Practice.

PENNSYLVANIA HOSPITAL.

Service of Dr. J. Forsyth Meigs.

CHRONIC PLEURISY; DILATATION OF THE PULMONARY ARTERY; CARIES OF THE SPINE.

The patient is a young woman, not married, 22 years of age, born in Ireland. She entered the hospital on the 8th of September; she states that she was in good health until two years ago, when she "took a cold," and her health failed; she had pain in the back, but none in the side, and no cough.

Her present illness dates back two or three weeks before her admission into the hospital. When first seen by Dr. Meigs, she was suffering from severe pain in the dorsal region, shooting downward and forward.

On Inspection, the left side of her chest is found contracted, flattened, sunken in, and its anterio-posterior diameter diminished, as usually found in old cases of pleurisy.

Percussion over the right side yields full resonance; over the left side the percussion-sound, however, is dull, flat, almost toneless.

Auscultation. In the *right* lung, there is very good, healthy vesicular respiration, no rhonchi, no signs of bronchitis; expiration, however, is somewhat prolonged. On the *left* side, the respiration is harsh, crude; the vesicular murmur imperfect, and marked by a coarse friction sound.

All the physical signs thus indicate contraction of the lung, in consequence of chronic pleurisy, which formed adhesions binding the lung down, and there can hardly be a doubt that her sickness two years ago was an attack of pleurisy.

There is, however, another point of great interest in her case. On examining the heart, the apex beat is found in its normal position a little distance below the nipple; but a well-marked pulsatory impulse is seen between the second intercostal space to the left, and, on auscultation, the first sound of the heart is found roughened and accompanied by a peculiar squashy sound. This pulsation and roughened cardiac sound are caused by active dilatation, probably, of the pulmonary artery, in consequence of the contracted condition of the left lung. If we look at the anatomical relation of the parts, it is easy to see why the pulsation becomes apparent externally. The lung (which, in its natu-

ral condition, covers the heart) is in this case retracted, and thus the heart is brought nearly in contact with the thoracic parietes.

Another very curious phenomenon in this case is a *bronchial rhonchus*, heard on putting the ear upon the anterior upper part of the chest, which rhonchus is *synchronous with the cardiac rythm*, instead of accompanying the respiratory movements. This is in consequence of the impulse of the heart being communicated to some of the larger bronchi.

Finally, this patient presents a slight anterio-posterior curvature of the spine, which was discovered on examining her as to the cause of the pain, to which she is subject. There is caries of one or more of the dorsal vertebræ, which, together with the intervertebral substance, have been partially absorbed.

This case illustrates forcibly how important it is in cases of spinal disease, and in fact in all diseases, to make a close examination, and to inspect, feel, and see.

Pain is often, for a long time, the only subjective symptom of caries of the spine; and what an error to call it rheumatism or neuralgia, when inspection may at once lead to a detection of the true nature of the difficulty!

The treatment in this case should be to build the patient up by proper diet and a tonic course.

EPISCOPAL HOSPITAL.

Service of Dr. R. P. Thomas.

[Reported by Dr. B. E. Fryer, Resident Physician.]

THREE CASES OF SEVERE INJURY TO THE HEAD, WITH RESULTS.

Case 1. Michael O'D., an Irish seaman, while returning to his vessel after a debauch, fell a distance of thirty feet through the tressel work on the Richmond coal wharves. He was discovered by some sailors and brought to the hospital about six hours after the injury. When we saw him, he was comatose, blood oozing from both ears; breathing, stertorous; pulse, 50 and full, with a peculiar thrill; skin cool; pupil of left eye dilated; right contracted; paralysis of facial muscles of right side; he was restless and could not be roused. Upon examination, we found severe contusion of the right side of the head and face, with a fracture of the lower jaw at the angle; but no fracture of the skull was discoverable, which the symptoms led us to believe existed.

He was ordered liq. morph. sulph. f℥j, with ext. conii gr. iij, every four hours, to quiet the restlessness, and the head to be shaved, and ice constantly applied to it. The next day he was quiet—blood still oozing from ears; other symptoms the same. Ordered blisters to calves of legs, and an enema. On the fourth day, the oozing from the ears had ceased, and he began to show signs of returning consciousness; the pulse and respiration were nearly natural. On the seventh day, the following note was taken:—"He is unable to close his right eye, and unable to open the left. There is paralysis, both of motion and sensation of the nerves supplying the right side of face, and he cannot draw the left eye-ball either inward or upward. On examination with the aural speculum, both membranæ tympani are found lacerated."

At the end of four weeks, he was allowed to sit up, when we discovered that he was myopic in the right eye, and presbyopic in the left. It is now three months since the injury, and he is gradually recovering from the paralysis; his mental faculties are as good as ever.

That there was compression of the brain in this case, is easily seen from the symptoms; but whether there was or was not a fracture at the base of the skull, is difficult to say, though we strongly suspect there was. The compression, however, must have been limited in extent, as we had only paralysis of the oculo-motor and pathetic nerves of the left side, and of the facial nerve of the left.

Case 2. James Malone, Irish, aged 26, was admitted into the house with a severe injury to the head and body, caused by a loaded coal cart passing over him in an oblique direction. There was considerable hemorrhage from the left ear; the pupil of the right eye was dilated, and the lid shortly after dropped; the skin was cool; pulse slow and full; he vomited copiously; talked rationally. We could trace the line of contusion caused by the wheel, which passed from the nape of the neck up over the ear; but could find no fracture of the skull. The left membrana tympani was lacerated.

The day following his admission, the oozing from the ear had ceased; there was slight paralysis of the facial muscles of the right side; he complained of severe pain in the head; vomited a large quantity of dark blood. Ordered blister to calves of legs, and hydr. protiodid., gr. ¼, every four hours. By the fifth day, the paralysis had all passed away; but he still complained of severe pain in the head. At the end of two weeks, this man was allowed to sit up, and in four was discharged cured.

It is wonderful that such a weight as a loaded coal cart passing over the head did not produce a more serious injury.

In both of these cases, we had symptoms of fracture of the base of the skull, and in both a recovery.

Case 3. Hugh L., English, aged 40, was admitted into the hospital September 17, 1860, for an injury caused by the bursting of a large grindstone, at which he was working—one-half of which, flying in the air, struck him in the face in its ascent. The accident occurred about three hours before admittance; he was still suffering from shock; had lost about half a pint of blood; pulse 80—quick and easily com-

pressed; skin cool; pupils nearly natural; was quite restless; answered questions imperfectly. Towards evening, pupil of left eye became somewhat dilated; respiration sterterous; pulse 100.

The face was swollen to an enormous size. All but one of the upper teeth were knocked out; the superior maxillary bones were fractured in two places; the nasal bones and the nasal processes of superior maxillary were all fractured. There was considerable hemorrhage from both nose and mouth. The bones were moulded in position by Dr. Thomas, and a Barton's bandage applied, so as to keep, by the support of the lower jaw, the upper in position. He was ordered an ounce of beef tea and wine whey every two hours, with sufficient morphia to quiet him, and cold water to be kept constantly to head and face.

On the third day, erysipelas set in on left side, which was gradually spread over the whole face. There was now a profuse discharge of pus from the nose. Ordered twenty-five drops tinct. of chloride of iron and one grain quinia every four hours, with lead-water and laudanum to face.

On the fourth day, he was delirious, so much so that he had to be secured to be kept in bed. Ordered an enema.

At the expiration of a week, the erysipelas began to abate, and the man became more rational, and has been steadily improving ever since. The bones have all united quite firmly, and there is very little deformity, considering the severity of the injury. He is weak yet, but will be sufficiently well to be discharged in about ten or twelve days.

UNIVERSITY OF PENNSYLVANIA.

MEDICAL DEPARTMENT.

(Service of Dr. Pepper.)

EFFECTS OF TOBACCO.

This patient is a common day laborer, between 50 and 60 years of age. He complains of having been out of health for two or three years, having lost flesh, his appetite declining, being troubled with sour stomach.

On close examination no organic disease could be detected. There is no enlargement of the liver, no pain about the chest, no cancerous disease of the stomach or pylorus, no tubercles in his lungs.

The patient states that for the last twenty-five years he has been chewing about one-quarter of a pound of tobacco per week, while he has also been using the weed freely in the shape of smoking. He had been told some months ago that smoking was hurtful to him, and having since stopped it, his health has improved, and he is gaining strength and flesh.

Prof. Pepper remarked, that tobacco was a very frequent source, not only of functional disturbances but of organic disease. Cases had fallen under his observation in which the effects of the abuse of tobacco closely resembled delirium tremens; we must, however, be careful in the sudden withdrawal of the article, which the system, so long accustomed to its use, can often not bear.

Treatment.—Let him continue to abstain from smoking, and gradually stop chewing tobacco, substituting in its place chamomile flowers.

JEFFERSON MEDICAL COLLEGE.

Service of Prof. Gross.

[Reported by Mr. N. G. Blalock.]

INJURY OF THE HIP JOINT.

This patient was a little boy, six years of age, who three months ago had received an injury, by falling a distance of three or four feet from a chair, and injuring his left hip.

When standing up, the left ilium was raised, so as to render the leg of the same side apparently shortened; at the same time there was an incurvation of the body from left to right.

It was at first supposed to be a case of anchylosis; but the patient being put under the influence of chloroform, in order to make a thorough examination, it was found that there was only partial rigidity from inflammation set up in the joint, in consequence of the fall; that plastic material had been thrown out, causing evidently thickening of the synovial membrane and roughening of the articular surfaces.

The incurvation of the body in this case is caused not by any actual displacement of the vertebræ or hip, but is the natural, instinctive effort of the child to relieve the pain. By raising the hip and bending the body toward the sound side, the acetabulum is separated as far as possible from the head of the femur, thus preventing friction and pressure of the inflamed parts. It is the natural effort of nature to secure rest.

Treatment.—The main object should be to cause absorption of the plastic matter effused, and to reduce the thickened membrane to its normal condition. The hot and cold douches, used in immediate succession twice a day, and followed by friction with soap liniment, to which a little veratria may be added, will be of service. There may be considerable difficulty in removing the incurvation of the body. The passive motion should be repeated every twenty-four hours.

CANCER OF THE BREAST.

A. C., a colored girl, aged 22, unmarried, has been suffering for two years from a tumor in her right breast. It occurred first in the form of a small lump, the size of a hazel-nut, movable, painless. It remained stationary until eighteen months ago, when it began to grow very fast, until it assumed the size of a fist, and recently it has become painful, the pain, as she

describes it, being of a stinging character. The nipple is not retracted.

Her general health is good; functions regular. There was no swelling of the glands of the axilla or neck.

Dr. Gross remarked that the tumor had more of the external features of encephaloid than of scirrhous. The case was one favorable for an operation, but as the disease was sure to return, the prognosis must hence be guarded.

The entire gland was removed by making a vertical eliptical section of the skin, and dissecting out the mass. The wound was closed by the metallic suture.

STONE IN THE BLADDER—LITHOTOMY.

A boy, four years and a half old, was brought in the clinic, with the following history:

He has been suffering for ten months with pain in the bladder, and irritation in the glans penis, with a con tinued desire for micturition, having to pass his water fifteen to twenty times in twenty-four hours. His general health is good. On sounding the bladder, the stone was readily detected.

Before attempting an operation, the patient's system should be thoroughly prepared, by administering mild cathartics, light diet, imposing rest, and on the night previous to the operation, the bowels should be thoroughly cleansed by a sufficient dose of castor oil.

In performing the operation of lithotomy, we shall divide the integument, areolar tissue, superficial fascia, transverse perineal muscle, membranous portion of the urethra, deep fascia, the left lobe of the prostate gland and the neck of the bladder. The patient being put under the influence of an anæsthetic, a grooved staff should be introduced into the urethra and bladder, and be held by an assistant, who should stand on the left side of the patient. In an adult, commence the incision about an inch above the anus, and carry it downward and outward, one and a half inches below the anus. In a patient of this age, of course the incision is not made so long. The internal opening should be as small as possible, compatible with the easy extraction of the stone.

The operation was then performed by Dr. Gross in the manner described. The stone was about one inch in its long, and three-quarters of an inch in its transverse diameter, with a somewhat roughened surface. The parts are not sown up, as in other wounds, but allowed to unite by the granulating process. The general after-treatment should be antiphlogistic.

VARICOSE ULCER.

Mr. M., aged 30, of good general health, has an ulcer of eighteen years standing. It is situated on the inside of his left leg, extending from the ankle joint up the limb, a distance of about three and a half inches. The internal saphenous vein is enormously enlarged, and the coats very much thickened, containing in some portions stones or *phlebolites* of considerable size. All attempts have hitherto failed to heal this ulcer, and always will until this varicose condition of the veins be removed. I shall therefore endeavor to relieve them by performing subcutaneous ligation in three or four places. This I shall do by passing a stout pin through and out on the opposite side. A strong silk the integument below the vein, ligature is then passed around both ends of the needle, and firmly tied, so as to enclose firmly the vein. We shall confine the man to his bed, and treat him antiphlogistically, giving him immediately an anodyne. After the veins are relieved of their varicose condition, and the natural circulation is established, the ulcer can be healed. We should always be very cautious in performing an operation on veins, from the fact that they are subject to inflammation, much more so than arteries. This man's general health is good—habits formerly intemperate. The result of the case will be reported hereafter.

Medical Societies.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

(Reported by Wm. B. Atkinson, M. D., Recording Secretary.)

Wednesday Evening, October 10th.

Dr. Isaac Remington, President.

Subject for Discussion: Opium as a Therapeutic Agent.

Dr. G. Hamilton opened the discussion by reading the following paper:

The subject for discussion this evening (introductory to which I have been appointed to make some remarks) is "Opium, as a therapeutic agent." Opium, or at least a substance closely resembling it in its effects on the human system, has been known and employed in medicine from the time of Hippocrates, or perhaps still earlier. And it is a somewhat singular and highly significant fact, that, during the lapse of so many ages, it has, with exceptional periods, continued to maintain the character of one of the most valuable medicines known to the Healing Art. We shall not perhaps err much in saying, that, at the present moment, its reputation as a curative agent is higher, in the estimation of our profession, than at any former period of its history. I repeat, as a

curative agent. For, whilst we are bound to admit that the sagacity of a Sydenham and a Pringle had long ago discovered in opium, qualities not merely palliative, but eminently remedial in their character, it seems to have been reserved to the times of a more enlightened physioiogical and pathological science to appreciate the real importance of this agent, and to define, measurably at least, the extent and applicability of its powers in the alleviation of suffering, or the prevention and cure of disease.

In regard to the action of this medicinal agent upon the system, and the various effects it is capable of producing, either in the normal or abnormal condition, much diversity and even contrariety of sentiment has always existed. Nor is this to be wondered at. For when it is considered that the primary operation of opium is nearly always, perhaps exclusively, upon the nervous system, the difficulty is easily understood. Even in our own time (notwithstanding the arduous and incessant labors of the physiologist and pathologist, aided as they are, too, by a more advanced physical, chemical and microscopical science,) the same difficulties to a great degree exist, and must continue to exist, so long as the normal functions of the nervous system are not more fully comprehended, and, above all, so long as the correlative movements of the three great divisions of this system are so imperfectly defined and understood.

The most generally-received opinion, however, at the present time, is, that opium, (and *by this term I mean the drug or any of its legitimate preparations,*) in a moderate or even large dose, is stimulant in its primary action, especially to the brain, and sedative in its secondary effects. The secondary action may be the result merely of the previous stimulation, or is possibly the more direct effect of some ulterior action inherent to the drug. The former is the more probable, inasmuch as the primary stimulation and the secondary depression are generally in mutual correspondence. When opium is given in an excessive dose, it exercises a directly narcotic influence on the entire nervous system, or if any excitement precedes, it is so short as scarcely to be noticed. Of the different portions of the nervous system, the cerebrum, as before intimated, is that on which opium seems to act with greatest energy; and the anterior part, where the more prominent of the intellectual and moral faculties are supposed to reside, is thought to be more particularly susceptible to its influence, and hence, as some suppose, the reason of the psychological phenomena and the impairment of the sense of smell and vision sometimes observed.

Be this as it may, conclusive evidence of the stimulant action of opium upon the cerebrum is afforded in the daily use of this article by so large a proportion of the inhabitants of the East, and more especially by the followers of Mahomet. To these people, opium must be viewed as the mere substitute of vinous and spirituous potations; and the charm of its operation is to be sought in a peculiar excitement of the brain, sometimes quiet in its character, and attended by sensations of a subdued but highly-agreeable kind, or sensuous dreams and visions of beatitude; and, in other instances, from excitement of a more active or peculiarly-modified character, by an increased sentiment of courage and of high resolve, enabling them to brave death, in whatever shape it may present. Leaving aside, however, evidence of this sort, and directing our attention to that which we find in our own sphere of observation, something like the following may generally be observed after the lapse of about forty minutes in those who have taken a small or moderate dose of opium. A slight sensation of fullness of the head, or throbbing of the temples; an increased glow of the whole cutaneous surface, terminating nearly always in perspiration; exaltation of the intellectual, moral, and imaginative sentiments; serenity of mind or the reverse; visual perceptions of objects of a strange, uncouth, or frightful character; sooner or later obliviousness; and, finally, sleep. From a larger dose there may be tension of the forehead or dizziness, redness and suffusion of the eyes, illusions, both of sight and hearing, confusion of ideas or delirium. To these symptoms, by a further increased dose, are superadded tension of the muscles, producing rigidity of the limbs, or unequal distribution of nerve-power, producing trembling or convulsive movements, insensibility to surrounding objects, loss of consciousness, fixed, immovable features, contraction of the iris, drooping of the eyelids, palor, slowness and feebleness of pulse, sometimes a fullness of pulse, slow respiration, coolness of surface, and at length congestion so perfect as to simulate very nearly the apoplectic state. These phenomena and others often noticed, clearly indicate with what power opium directs its operation upon the brain, although a part of them are equally dependent upon the spinal and ganglionic systems.

The symptoms just detailed are presented to our observation in the normal condition of the organism in one unaccustomed to the action of opium, and presenting none of those numerous pathological conditions, whose existence so frequently calls for the use of this remedial agent, and modifies to such an extraordinary degree its operation upon the entire or separate divisions of the nervous system. As may be supposed, the different organs and functions of the economy come in for their share of the widespread influence of this agent. The digestive organs, in particular, partake of it, and it seems somewhat singular, that whilst the appetite is, as a rule, diminished, thirst is greatly increased. The loss of appetite, in this case, has been attributed to diminished secretion of bile and pan-

creatic juice, but a more plausible explanation may perhaps be found in a diminished nutrition and consequent depressed state of all the processes depending upon the nerves and centres of organic life. The constipation of bowels, so commonly noticed, may also be properly attributed to the same agency. Nausea and vomiting are of frequent occurrence, and, according to Trousseau and Pidoux, females are annoyed in this way, in the proportion of nearly three to one, as compared with males, thus showing that the more nervous the temperament, the greater the proneness to gastric disturbance. The secretions are in general diminished. So far, however, as the bile is concerned, a reasonable doubt may exist, that any diminution of this secretion occurs, other than the general depressed state of the nutritive function would render necessary. This condition of the organism may, perhaps, in fact, account for all the changes observed in the secretions, no more of each being furnished than the exigencies of the economy may at the time require. Yet even here, anomalies are found to occur; the secretion of urine, according to the showing of the authors above quoted, being increased in males, after four or five days use of the salts of morphium, in about one-fifth of the whole number of subjects. Perspiration is nearly always increased by a moderate or full dose of opium, and this increased activity of the cutaneous exhalants is generally accompanied by an increased action of the heart and arteries, as is shown in such cases by increased color of the surface of the body. As in ordinary circumstances, so, under the use of opium, an inverse relation obtains between the action of the kidneys and that of the skin, and whilst the kidneys in males, so the skin in females, is found to be as a general rule most active: and hence the more abundant perspiration in the latter, due perhaps to the greater delicacy of the dermoid tissue. It has been noticed that perspiration, produced by the external application of the salts of morphium to a denuded surface, shows itself first in the vicinity of the part to which it is applied; but the same circumstance, I believe, has been observed in perspiration, occurring, as it often does, from the action of a simple vesicatory. The action of opium is more promptly manifested when applied in the form of one of the salts of morphium to a denuded surface than when received into the stomach; and when injected into the cellular tissue or into the blood vessels is still more decided. When injected into the bowels, its action is likewise soon perceived, and, according to the testimony of most of the French writers, it produces even more powerful effects, used in this way, than when taken into the stomach: in explanation of which they allege it is less exposed to alteration by the juices, and is exempted from the action of the stomach.

Our own experience, on the contrary, as that also of English practitioners, is decided in regard to its diminished power when so employed. Various circumstances pertaining to the individual tend to modify in a marked degree the action of opium upon the system. Other things being equal, the nearer to birth, the more susceptible is the system to its influence. This circumstance has led some writers, of good standing, to doubt the propriety of its employment in the diseases of young children, but, as we think, without sufficient ground. For, as the nervous system is that in which disease or commotion shows itself most frequently in young children, so is it that in which opium displays its most beneficial influence as an anodyne, sedative, or remedial agent. Redoubled caution is alone required in these cases. Next, after children, females are most readily affected by opium, and many of them to such a degree, from its action upon the brain and stomach, as to render them wholly unable to support its operation, even in minute doses. There is reason, however, to believe, that in many seeming cases of this sort, when combined with proper correctives, and employed with great caution and strict regard to the peculiarities of the case, and persevered in, until a full trial has been made, the beneficial effects of the medicine might at length be secured. With opium, as with some other medicinal agents, intolerance of its action, on the part of the stomach or nervous system, will sometimes, after a few trials, give way. In instances of this kind, much will depend on the particular preparation selected, combination, and mode of administration. Excessive pain or cramp, and certain affections of the nerves, whose pathology is not well made out, modify to an extraordinary degree, or even wholly resist the action of opium, as we have evidence of in tetanus.

As regards the particular mode of operation of opium, a great deal might be said, and yet in truth we know but little more than this: that whilst it seems capable of a diminished effect, from direct contact with the nerves, it owes its more powerful influences upon the human organism to absorption into the blood, as is clearly evinced in the fact of the narcotism of children, from imbibing the milk of a mother under the narcotic influence of opium. The system once brought under its action, symptoms either of excitement or depression may appear; this depending upon the dose, lapse of time after taking it, idiosyncracy, condition of the stomach as to repletion or vacuity, state of the general system, or of some special organ, and many other circumstances, some of these known, and by far the greater part entirely beyond our ability, in the present state of pathology to fully appreciate. A moment's reflection will serve to show the rôle an article of such singular and transcendant powers must perform in Therapeutics. As a medicinal agent, opium may, in truth, be said to be without a rival. Nor is it to be wondered that Sydenham should have re-

garded it as a gift of Heaven for the alleviation of man's sorrows and pains, nor that he should have said of opium—"*ut sine illo manca sit et claudicat medicina*"—without it medicine goes hobbling along. If we but reflect upon the extent and variety of the influences of this substance upon the normal condition, we may form some idea of the extent of its applicability to the numerous pathological states to which the economy is constantly exposed. As before intimated, many of these conditions are obscure in their manifestations, and a corresponding doubt and difficulty often besets the path of the practitioner as to the extent of employment or non-employment of this agent so potent for either the weal or wo of his patient.

It is in this point of view especially incumbent on the physician to attend *closely to the various contraindications, and particularly in the case of children.* As a rule, opium is not to be given in fever or inflammation with great arterial excitement and strong determination to the brain, nor in the reverse condition of great venous congestion, the latter being the more dangerous of the two. It is likewise contraindicated when any known peculiarity of constitution leads us to fear apoplexy, In cough, accompanied with excessive bronchial secretion and great debility of the general powers, such as often exists in persons of advanced age, and in addition feeble pulse, the consequence of organic disease of the heart, its use should, if possible, be avoided. But it is difficult to establish rules in things of this nature, *and they could at best meet but a limited number of the emergencies* constantly arising. The judgment of the practitioner at the necessary moment must be the guide.

Exercising its influence mainly upon the nervous system, opium is found to be especially prompt and useful in its action in the class of diseases and commotions called nervous. No other article of the materia medica is comparable to this in its general power of calming the agitation and removing the malaise so often experienced in disease, nor in its efficacy in allaying exalted sensibility, subduing the severest attacks of pain, and in procuring repose and sleep. Of these various affections, pain is the most difficult to bear, and, fortunately, in a large proportion of cases, it is that which is most amenable to the action of opium. The power of this medicine in allaying the most intense agony may well challenge our admiration and excite our surprise. The character of the pain, its location, and the particular state of the vital functions will enable us to determine the particular preparation to be used, as well as the extent and mode of its employment. The dose necessary in some cases of purely nervous spasm or cramp is very large, yet in such instances it is seldom productive of ill consequences or material inconvenience. When pain is connected with vascular irritation or a degree of inflammation, a more moderate and prolonged use of opium is demanded. Inability to sleep is one of the most common, harrassing, and debilitating conditions we meet in practice. Its causes differ much, some of them arising from transient and obvious reasons, others obscure in their origin, and still others depending upon constitutional proclivity. The first are, of course, most amenable to treatment, and consist chiefly in pain of greater or less degree, and in a certain (to the patient generally indescribable) feeling of malaise, maintaining a general nervous irritation of the whole system. In such cases, opium alone, or combined with antispasmodics, affords the greatest relief. Yet as such a condition is very often the attendant of fever, either idiopathic or connected with inflammation, close attention should be given to the contraindications, and the treatment modified accordingly.

Of special diseases in which opium is more particularly employed, I will mention some of the more prominent, without, however, confining myself to any strict order.

In the treatment of *Neuralgia*, great relief is often obtained by a liberal and judicious use of opium. But here, again, the real origin of the affection is frequently obscure, and whilst many cases (no doubt of eccentric character) are susceptible of amelioration or cure, others, owing their origin to causes of another kind, prove intractable to this and all other medication, and admit only of temporary relief. In such cases relief has been obtained by the injection of the cellular tissue over the track of the nerve affected, after the failure of the ordinary mode. The utility of opium in the management of *Delirium Tremens* has been hitherto generally conceded. The chief difference of opinion was and yet is, in determining the proper dose and the frequency of its repetition. Here practitioners are still at variance, for whilst the rule with some is to direct opium until sleep is obtained, others are disposed to hesitate after having fruitlessly given a number of very large doses; and a third set are content with administering very small doses, and that with watchful solicitude as to the effect. The number of cases of the affection in question in my own practice has been too limited to enable me to discriminate which of these modes of treatment is most consonant with the pathology of this disease, or most conducive to the welfare of the patient. Whilst it is certain that persons have recovered from these attacks, after taking an amount of opium just as large as those we read of it is perhaps not so clear that they recovered in virtue of these inordinate doses. Constitutions, capable of resisting the operation of such an amount of opium as we both read of and know of, may fairly be supposed to possess no small share of recuperative energy. Be this as it may, the practice cannot be deemed otherwise than hazardous, and the patient, no doubt from time to time, suffers the disastrous results attaching to this excessive use of the medicine. A mode-

rate and guarded employment of opium in instances of this sort, aided, as the exigencies of each case may seem to demand, by alcoholic stimulus, will probably exhibit a more satisfactory statistical result. Sleep has, in cases of this kind, (as in many analogous states of the brain and nervous system,) often followed the sudden suspension of the medicine.

In *various spasmodic affections*, external or internal, depending for their exciting cause upon excessive pain, opium affords the quickest and surest relief. Where, however, no such exciting cause is discoverable, caution is to be observed, with a view to determine as nearly as possible whether the irritation productive of convulsion be of peripheric or centric origin, as in the former only can much benefit from treatment be expected. Of this particular class, the convulsions of children, occurring generally between six months and three or four years of age, are those most frequently demanding our attention. They are nearly always caused by the irritation of teething, or by intestinal irritation, from improper or undigested food. These convulsions generally assail suddenly, without apparent previous indisposition, though, in other cases, fever, with slight twitchings of the tendons, precede for a short time. In either case, after the evacuation of the stomach and bowels by an antispasmodic purgative or injection, if the case be pressing, and giving proper attention to the state of the gums, an injection of laudanum and starch has often been productive of more benefit in quieting irritation and obviating returns of the convulsive movements than I have usually seen from bleeding, leeching, and the various topical applications generally resorted to in such attacks, although these may be necessary precautionary measures, in view of the tender organization of the brain in children, and its remarkable proneness to disease.

In the *modus operandi* of opium in relieving these and analogous affections of the nervous system, we may see a full exemplification of its extraordinary sedative and anodyne powers, when properly employed. Nor are these powers confined to any one of the three great divisions of the nervous system. For in the affections alluded to, it is sometimes the brain, sometimes the spinal marrow, and at other times the nerves and centres of organic life that are most implicated.

Now, whilst it would be exceedingly difficult to define the precise extent, to which any one of these systems might be involved, as compared with another, and still more difficult or impossible to appreciate the *correlative movements of these different systems* in a given case of disease, it may, perhaps, be doubted, whether in pathological states we are not in the habit of attaching too much importance to the brain, and too little to the centres and nerves of organic life. The different affections, to which reference has been made, are chiefly eccentric or peripheral in their origin, *and it is with this peripheral system that the sympathetic nerves and ganglia have their closest relation;* and the inference we think a rational one, that the sedative and anodyne power of opium is exerted quite as much or more in allaying morbid irritability in this system, than in merely blunting the perception of this morbid condition in the brain.

[*To be continued.*]

EDITORIAL DEPARTMENT.

PERISCOPE.

TREATMENT OF DELIRIUM TREMENS BY LARGE DOSES OF DIGITALIS.

In the number of September 29th of the *Medical Times and Gazette*, Dr. G. M. Jones, Surgeon to the Jersey General Hospital reports his treatment of delirium tremens by large doses of digitalis. As the subject is of considerable interest, showing how large doses of this drug may be borne in certain conditions, we give Dr. Jones' views somewhat in full.

"About twelve years ago I was called to see a patient with delirium tremens, residing about a mile from my house, who was almost *in articulo*. I prescribed a dose of chloric ether with tincture of opium; but the wife, who came for the medicine, took, by mistake, a phial containing *one ounce* of tincture of digitalis. I discovered the error, and was horrified when I heard that the patient had taken this dose; but no less surprised than pleased when I also heard that, instead of being poisoned, he was very much better. Under ordinary treatment, I fully believed he would have died; but after this single dose he rapidly recovered. Profiting by this hint, I began to give digitalis in all the cases of delirium tremens which came under my care in hospital and private practice; and during the last twelve years I have adopted it in at least seventy cases—this effect of drunkenness being very common in Jersey.

"As to the dose, experience has taught me that the best dose is *half-an-ounce* of the tincture given in a little water. In some few cases, this one dose is enough, but generally a second dose is required four hours after the first. In some cases, but very seldom, a third dose is called for; but this hardly ever need exceed two drachms. The largest quantity I have ever given was *half-an-ounce* at first, *half-an-ounce* four hours afterward, and another *half-ounce* six hours after that—making an ounce and a-half in ten hours.

"As to the effects of these doses, my impression is that the action is on the brain, not on the heart. The pulse, so far from being lowered

in force, becomes fuller, and stronger, and more regular, soon after the first dose. The cold clammy perspirations pass off, and the skin becomes warmer. As soon as the remedy produces its full effect, sleep for five, six, or seven hours commonly follows; sleep is the guide as to the repetition of the dose. No action on the kidneys is evidenced by any unusual secretion of urine. Sometimes the bowels are slightly acted on, but not commonly. I have never once seen any alarming symptom follow the use of these large doses of digitalis. The only case I have lost since adopting this treatment had a tumour in the brain. In three only was other treatment adopted after digitalis had failed to procure sleep; in other words, in sixty-seven out of seventy cases digitalis was the only medicine used, and sixty-six of these patients recovered. I do not mean that these are the exact numbers of those treated; I am certain as to the death, but I may have had more recoveries. I am well within bounds in saying seventy cases in twelve years, and that all of them were well-marked cases of delirium tremens. Slight cases of nervous derangement after drinking I have seen in great numbers; but I speak here only of such cases as required active treatment. My previous experience of the results of the treatment by opium, or some of its preparations, by anti-spasmodics, etc., had certainly been much less successful; the proportion of deaths was larger, and the recovery much less rapid. Again, I have treated more than one patient successfully by digitalis, who, in subsequent attacks elsewhere, has been treated by opium and died; and in many of the cases in which I have used digitalis successfully, opium had been previously given without any good effect.

"I will only allude to one case in illustration: On September 9, 1860, I was called to see a gentleman, 48 years of age, who was in a very alarming state, having been without sleep four days and nights, having been 'muddled' for two months before, and having previously had 'fits of the horrors.' He had been treated by another practitioner by opium in moderate doses, but had become worse, and when I was sent for it was the opinion of Mr. Spencer Wells and Mr. McCrea—who accompanied me in my first visit—that the case was as bad a one as *they* had ever seen; certainly *I* never saw a worse. The pulse was almost imperceptible; the skin covered with cold, clammy perspiration; the face deadly pale; the lips blue; the hands tremulously grasping the air; the eye expressive of great fear; the mind gone; he was muttering incoherently. With some difficulty I passed half an ounce of tincture of digitalis down his throat in the presence of my friends. In a few minutes he became more tranquil, the pulse was felt more easily, and we left him. After four hours I found that he had not slept, but he was rather more sensible, less tremulous, and warmer. I accordingly repeated the dose. Three hours after that, as he had been still without sleep, though in other respects improving, I gave two drachms more, making ten drachms in seven hours. After this he had some sleep, and had slept at intervals during the night. The next morning Dr. Ballard saw him, with my other friends, and all of them were much pleased with the great improvement manifested. He was sensible, his fears had disappeared, he was very slightly tremulous; the skin was warm, the tongue moist, and the pulse full and regular at 90. The heart's sound and impulse were normal; the bowels had acted once, and urine had been passed in natural quantity. After this he took some broth, drank freely of imperial and lemonade, but took no stimuli of any kind, or any other medicine. He slept uninterruptedly for three hours and a-half in the afternoon, and at intervals in addition. The next night was a good one; and when he was seen by my friends again the next morning he was almost well, and calling out for a mutton-chop."

PERCHLORIDE OF IRON IN DISEASES OF THE SKIN.

As the result of numerous trials, M. Devergie arrives at the following conclusions:—1. It is the most efficacious agent which has been employed in the internal treatment of *purpura simplex* and *hæmorrhagica*. 2. It may be employed with much advantage internally in the cachectic and anæmic condition which so often accompanies certain forms of disease of the skin, as *rupia*, *ecthyma*, *cachecticum*, *impetigo scabida*, and atonic ulcers of the lower extremities. 3. It is not of the same value in active hæmorrhages or in the acute forms of the diseases just named. 4. Employed externally, in the liquid form, in different degrees of strength, it may exert great influence in modifying the condition of wounds; atonic, scrofulous, and syphilitic ulcers, and various forms of chronic disease of the skin, accompanied by secretion. Under its employment obstinate morbid conditions have yielded which have resisted a great number of external agents. 5. Its use, in the form of ointment is most advantageous in the declining period of diseases with secretion; but used in pretty strong doses; it is also useful in certain squamous affections, diminishing the period of time necessary for the application of such disagreeable substances as tar or cade oil.—*Bulletin de Thérapeutique*, tome lviii. p. 297.

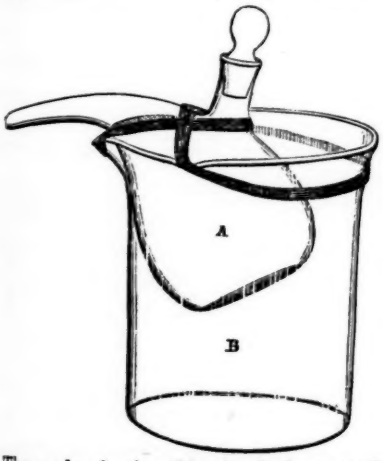
APPARATUS FOR THE LOCAL APPLICATION OF STIMULATING OR ANÆSTHETIC VAPORS.

Dr. Dewees, of New York, in a letter to Dr. Douglass, of the *American Medical Monthly*, describes his apparatus as follows:

Dr. Douglas: *Dear Sir*—In reply to your note respecting my instrument for etherization and vaporization in certain diseases of the ear, I will furnish you with a drawing of its arrangement, and a description of its use, as employed

by me, not only in aural disorders, but also in neuralgia requiring local anæsthesia, and some diseases of the spinal column in which topical irritation is called for, varying from an artificial glow up to absolute cautery.

The instrument originally used by me during the last fourteen years is still in my possession; but, from the inconvenience and imperfectness attending vaporization by the heat of the hand, or by holding it in warm water, I have laid it aside, and have contrived the one to which you refer. This instrument (see cut) consists of a delicate Bohemian glass retort, with a nozzle projecting an inch and a half, perforated by a capillary aperture. The supply-tube of the retort rises about an inch above the level of the curved neck, thus allowing greater freedom in pouring in the fluid to be evaporated. A cork stopper, with an elastic cap or holder to prevent its expulsion, or a ground-glass capillary tube stopper, closes this entrance, the one or the other to be used according to circumstances of application. The retort, when charged with the fluid to be evaporated, is then lodged within a hard glass receiver, three inches high, having its rim lipped deep enough to embrace the projecting nozzle of the retort, thus affording greater steadiness, besides serving as a catch for the elastic band retaining the nozzle in its projection. Small nipple-like catches are studded on the opposing centres of the rim of the receiver, to afford resisting points for the elastic back band which passes from under the posterior rim across the front of the supply-tube. By these two elastic bands, the mobility of action is fully commanded in the projecting nozzle.



The mode of using this simple but astonishingly effective little instrument requires but little practice to regulate it to the necessities of the case. About two drachms of ether are to be poured into the retort when secured in the receiver. The stopper should be firmly fastened, and the finger can be readily placed over the nozzle aperture during or after the introduction of the warm water or sand into the receiver. A rushing or blowing sound of the escaping vapor or gas immediately ensues through the aperture, if uncovered. The nozzle is then introduced within the auricle, and a little experience will soon teach the time and proper distance (from the drum) of the application. Moderately warm water will only be required for sulphuric ether, the degree of heat to be varied according to the specific gravity of the evaporable fluid, and according as a slow or rapid disengagement is needed.

Besides its use in etherization of the ear, this little instrument affords in neuralgia the most elegant mode for the application of local anæsthesia, the constant current from the evaporating ether, chloroform, &c., being readily applied directly to the suffering part, and made to follow the course of the painful nerve. When it is wished to apply the anæsthetic locally, I use a ring of adhesive plaster or of kid, to prevent the diffusion of the vapor over the surrounding parts. A common pill box, perforated to admit the nozzle of the instrument, and applied over the part, also answers well. In inhalation, or in etherization, through the Eustachian tube, the capillary glass stopper will be found preferable, as it admits a sufficient admixture of air, as well as an outward communication for breathing.

In certain spinal or nervous disorders, this instrument affords a most ready and exclusive mode of applying heat, which can be made to vary from a simple glow to the moxa or absolute cautery. This is effected by igniting the jet as it passes through the capillary tube of the nozzle, the amount of force being regulated by the evaporizing temperature employed, and the distance from the part. The circular protection above mentioned is useful when the moxa is required.

In some of the diseases of the ear where, beside the anæsthesia to the inner nervous distributions, a *local stimulant* or *irritant* to the drum or the auricle is wanted, this instrument offers a ready method of effecting the desired end, viz. by adding to the ether, or other fluid, a volatile stimulant, as for instance, the ess. ol. sinapis, diluted. No practitioner should be without one, from the extensive capacity of the varied adaptability of the instrument. In diseases of the ear, or in neuralgia, it can safely be intrusted to a patient for self-application. Many volatile substances can be directly applied through its agency."

Dr. Levis, of this city, accomplishes the same object, with probably as much efficiency, in even a simpler manner. He uses a bottle of almost any size, with a capillary glass tube perforating its cork. Ether is poured into the bottle, and the heating for evaporation effected by simply wrapping around it a towel or cloth which has been dipped into hot water and wrung out.

THE MEDICAL AND SURGICAL REPORTER.

PHILADELPHIA, SATURDAY, OCTOBER 20, 1860.

THE REVOKING OF A DIPLOMA.

A recent number of a prominent British Medical Journal has an article referring to American diplomas, in which mention is made of a case which happened some years ago, and in the recital of which some slight errors have crept in, which we take occasion to correct, in order to bring the facts more prominently before the profession here, as well as for the benefit of our transatlantic cotemporary.

The case referred to is that brought before the American Medical Association by the Newark Medical Association, in a complaint or memorial addressed to the former body at its session in Washington in 1858, in which memorial facts and testimony were published, which showed conclusively, that the Faculty of the then New York Medical College, of which Dr. Horace Green was President, had bestowed their diploma upon a most ignorant and unworthy quack, and that too when he had fulfilled hardly any of the requirements of graduation.

The case in question is a type of many, and the precedent which it has established, is one of importance. The then New York Medical College is one of the things past—for though it bears the old name, the institution at present is entirely re-organized—and we feel that in speaking of the dead we can do so impassionately and with impartiality. At the same time it affords an excellent opportunity to point out as a warning to others the ruins of bygone greatness, for, after the memorial in question was brought before the profession, the New York Medical College went rapidly down, and nothing in the wide world could save it. Of course this galloping consumption may have been merely coincidental with the severe charges brought against the college. Yet we hardly think that even the most vigorous school in the United States would be able to stand in the position in which the New York Medical College did then, without coming away severely damaged. Another reason why we allude to this matter now, is to call upon the profession throughout the country, especially the officers of State Societies, to keep a watchful eye upon all such cases, and to institute vigorous measures whenever medical schools, intentially or otherwise, abuse their privileges.

The British journal referred to states that a complaint having been brought forward against the New York Medical College, the diploma in question was *not* revoked. This is simply a mistake. If the reader will turn to vol. 11, 1858, p. 49, of the Transactions of the American Medical Associatien, he will there find the following:

"Dr. John Watson, of New York, from the Committee on Ethics, reported as follows:

Whereas, It appears from undoubted testimony that the New York Medical College have conferred the degree of Doctor of Medicine upon a notorious quack of the name of John F. Dunker, of Newark: the Faculty, in the person of the President of said College, wish here to declare that the degree was obtained under gross deception, and false testimonials furnished by said Dunker and his friends, and they, therefore, revoke and annul his diploma, and declare said Dunker to be unworthy of patronage or support, from authority conferred upon him by this diploma.

Dr. C. C. Cox, of Maryland, moved that the report be indefinitely postponed: which was not agreed to.

On motion, the report was then adopted."

There can be no equivocation then, about this matter. The diploma HAS been revoked by the President of the College, as such, and the Society in question has done essential service in establishing the precedent. Though, when violating the trust and good faith put in them, medical schools may, perhaps, not be liable to be arraigned before the law of the State, they may be summoned, as in the case referred to, before the forum of the public professional opinion of the land in its embodiment,—the American Medical Association, and before it be made to acknowledge their error, and by revoking their act repair the injury inflicted on the profession and the public.

STILL ANOTHER DEATH FROM CHLOROFORM—SHALL ITS USE CONTINUE?

A death from chloroform, at the Northampton Infirmary, is recorded in the London *Medical Times and Gazette*. The patient was about to submit to an operation for the removal of a small tumor from the back. Chloroform was administered cautiously. The testimony before the coroner's jury says that the effects of the anæsthetic were soon visible upon the deceased, who became insensible without anything unusual being observed, although he was closely watched. On removing him into a proper position for performing the operation, it was observed that his countenance was very much changed. The suspicions of the operators were at once roused, and immediate steps were adopted for bringing the man to his senses again, instead of commencing the surgical operation. Restoratives were resorted to, but to no purpose. Artificial respiration was then attempted, but this, too, was unavailing, and after an hour's futile endeavors at respiration, the deceased was reluctantly given up as lost.

We record this case, not from any peculiar interest that it possesses, but that it may be added to the long, dark list which now stands against chloroform. All statistics of fatalities from chloroform which we have seen, are inaccurate, and far below the truth in their estimates, and we desire that every fatal case attributable to it may hereafter be presented. It is hoped that such cases, instead of being concealed, as they often have been, as if the unfortunate administrator felt guilty of homicide, will henceforth be published. We believe that, had all the deaths from chloroform been properly noted, a list could now be presented which would astonish most of the advocates of its use, and do much in future to prevent loss of life by causing the discontinuance of its administration.

The practice of administering chloroform is rapidly decreasing in this country, and we some time ago predicted its discontinuance for general anæsthetic purposes, and the substitution of ether. If its use is not lessening in Europe, there is a growing want of confidence in its safety. The very caution with which European surgeons give it, shows that they use it with a consciousness of its danger. In the testimony of this case it was stated that the operator had the precaution to examine the deceased, "to ascertain if he was able to bear the effect of the chloroform." In the use of ether, which is now admitted to be almost absolutely safe, no one ever thinks of using such precautions, and it is now deemed admissible in any condition in which its anæsthetic effects are desirable.

We relinquished the convenient use of chloroform with reluctance. When deaths under its administration became frequent, we still hoped that greater caution in its use, increased study of its physiological effects, further knowledge of the conditions which contra-indicate it, and a discovery of the constitutional idiosyncracies which make the administration fatal, would enable us to continue its use with safety. But the fatalities are now as numerous, as unexpected, and as inexplicable as ever. Patients in vigorous health, and under the most cautious hands, continue to die when but little of the vapor has been inhaled, and sometimes at almost the first inspiration.

In the present state of our knowledge of the mysterious fatal influences of chloroform, and its acknowledged uncontrollable mortality, we consider its ordinary use unjustifiable while an efficient and safe alternative for use is at hand. If the profession do not discontinue its use, patients will soon refuse it. There is already, owing to its dangers, an increasing prejudice among the masses in regard to anæsthesia, in whatever manner produced, and if the use of chloroform, with its fatal accompaniments, continues, the popular verdict will condemn anæsthetics entirely, preferring to suffer pain rather than incur such a hazard of life.

MEDICAL PROGRESS IN ILLINOIS.

We are glad to learn that the Medical Society of the city of Galesburg, Ill., have adopted unanimously a series of preambles and resolutions respecting the legalization of dissecting in that State, and a better registration of deaths,

births, and marriages. The following are the resolutions:

Resolved, That we deem it wise and necessary, on the part of the Legislature of this State, to make some provision which will admit students of medicine and members of the profession to supply themselves with material from subjects interred at the public expense, when not claimed by relations or friends, under such restrictions for the protection of the public interests and feelings as the delicate nature of the case may suggest.

Resolved, That a law for the registration of births, marriages, and deaths, will contribute much to a better understanding of our climate, vital statistics, sanitary and industrial condition; to say nothing of the legal, historical, and medical knowledge otherwise accruing therefrom.

Resolved, That we hold the relation of physician and patient to be of the most private, personal, and confidential character; and as such should ever be held inviolate, and as exempt from inquisitorial proceedings as those of the attorney and his client. That in accordance with these sentiments we claim that no person duly authorized to practice medicine and surgery should be compelled to disclose any information which he may have acquired in attendance on any patient in a professional character, and which information was necessary to enable him to prescribe intelligently, as a physician, or do any act as a surgeon.

Resolved, That the statutes of the States of New York, Michigan, Iowa, Wisconsin, and Missouri, extending to the medical profession these legal privileges, are founded in justice and good morals, and have a proper regard for the peace of families and the community, and therefore receive our entire approval in meeting the wants of the profession in this State.

Resolved, That at the proper time this Society will prepare a memorial to the Legislature calling attention to these, as we believe, rightful statutory provisions, and ask for such enactments as the several cases herewith presented may require.

Resolved, That we recommend similar action to other medical societies, and we solicit their active co-operation in carrying out the spirit of these resolutions.

M. K. TAYLOR, M. D., President.

H. M. Starkloff, M. D., Secretary.

We hope the example of the Galesburg So ciety will be speedily followed by every Soci throughout the State, and that similar effo will be made in other States into which the reforms have not yet found way.

OUR MORTALITY TABLES.

It affords us great pleasure to lay before o readers a letter from Dr. J. H. Griscom, of Ne York, regarding our weekly table of mortali statistics. We have a few remarks to ma regarding the valuable suggestions which the prominent sanitarian offers.

First. We shall, of course, insert the pop lation of each city as soon as we can get it *liably;* of some we have already semi-offici data. But, as this feature is only of *relative* a *comparative* value, we shall not commence wi it until we can get *most* or *all* of the cities.

Secondly. In reference to the *still-births*, th ought *all* to be inserted; but at present th miserable, unscientific mode of registrati with its bad arrangement and worse nomencla ture, of most of the cities, is a check to any pe fectly-accurate statistics. We cannot force offi cials to insert still-births, or to leave them ou we have to rely upon their *common sense* to gr dually bring their mortality reports up to "sanitary" condition.

Thirdly. We have left a blank for *parentage* but the difficulty is, that *no* Dr. *Snow* stands the head of every health department of eve city, and that in many cities there is no healt department at all. To show under what dif culties we labor, we extract the following fro a letter received from one of the most prom nent physicians of one of our most importa cities of the West:—

"I do not know what I can accomplish the way of getting weekly reports, but will t

"We have the most obstinate, selfish, stin and unenterprising Mayor in the States; no difference what benefits might accrue, 'Wh does it cost?' would be the answer."

The fact is, we mean to *educate* ourselv and the *health departments* up to the very hi standard of statistical science; to do this, have all to commence as 'Abecedarians.' W shall hence be obliged for any suggestions fro

those who have entered the 'inner temple'—only hoping that, for the present, there will be no *fault-finding*.

SUBSTITUTING NON-OFFICINAL FOR OFFICINAL PREPARATIONS.

A medical gentleman, of this city, traveling South a few weeks ago, and spending some days in Baltimore, had occasion to prescribe for a friend, suddenly attacked with some disorder, the solution of morphia—meaning, of course, the *officinal* preparation, containing one grain of the salt to the ounce of water. It was only accidentally discovered that the druggist dispensed a solution containing *sixteen* grains to the ounce, and on further inquiry it was found that he had not even the officinal preparation, and that, unless especially designed, the strong solution was always dispensed, and that this was the habit of druggists in Baltimore generally. Thus only by accident the patient in this case escaped poisoning. We call the attention of our readers in Baltimore to the subject, and would be pleased to hear from them in regard to it.

SPIRIT OF THE MEDICAL PRESS.

The New Orleans *Medical News and Hospital Gazette* speaks of the Progress of Medical Teaching in New Orleans. There is, perhaps, a pardonable degree of self-complaisance in the tone of the article, seeing that the *News* is the organ of the "second school," to whose influence so much is attributed. The number of students, it says, has rapidly increased from two to six hundred. Moreover, the system of teaching has improved, and the Medical Department of the University of Louisiana has been compelled to follow the lead of the New Orleans School of Medicine in teaching its pupils the "art of practicing medicine." "The New Orleans School of Medicine raised the torch, and showed the path of progress, and one by one, willingly or unwillingly, the schools must file in." Prof. Lawson, late of Cincinnati, is announced as the man who is to teach the pupils of the University the art of practicing medicine. The New Orleans school inaugurates this winter the teaching of Experimental Physiology and Clinical Surgery, and the *News* claims that the example must be followed—by the University, of course! We are very glad that the New Orleans School of Medicine has been potent for so much good, and hope that it will exert its wholesome influence on all the schools of the country!

The Health of New Orleans, we are informed by the same journal, has been unusually good this season. Between the 7th of July and the middle of September, there were eight or ten deaths reported by yellow fever, though the *News* expresses some doubt about the cases being all yellow fever. The season has been one of the hottest ever known in the South, and the reported deaths by sun-stroke and apoplexy have been very numerous. The *News* expresses the opinion that far the greater number of cases reported as apoplexy were really sun-stroke. It gives the following record of deaths by these diseases:

	Sun-stroke.	Apoplexy.
Week ending July 8th,	7	12
" " 15th,	42	40
" " 22d,	4	3
" " 29th,	4	7
" Aug. 5th,	2	3

On the subject of Medical Teaching in New Orleans the *News* seems to be a little beside itself. Its leading editorial for October begins with the health of the city by way of covering a good deal of self-glorification and gratulation on the subject of medical teaching in New Orleans. It is scarcely worth while to "hear it, while it spreads itself," further than to say that it claims that its school has, in "four short years," made New Orleans the centre of medical education for the South—(poor Nashville! "Ichabod" is written on her walls!)—and in four more she will be "*the medical centre of the Union*"—(alack-a-day, Philadelphia and New York!)

The *News* very properly animadverts on the practice of physicians—members of the American Medical Association—giving their names in recommendation of surgical instruments, as contrary to the spirit of the Code of Ethics.

The *American Medical Monthly* for Oct. speaks of the Opening of the Medical Schools of New York. It says that unusual preparations have been made, and that all the colleges of that city are prepared to begin the session of 1860–61 with an ardor never before witnessed. It speaks in the following terms of the preliminary courses of lectures in the several colleges:

"These lectures—introductory to the regular course, and extending through a month—are

not exclusively given by members of the Faculty, but in many instances by aspirants to professional dignities, for the enunciation of new views or new thoughts, as well as by those whose delegated province it is to teach. They often are, then, more interesting and quite as instructive as those of the regular course. The special subjects taken up are generally such as the lecturers most delight in, and upon which they have observed much and studied much; consequently they enter upon them with pleasure, lecture with more nerve, exhibit more originality, abandon themselves to their own personalities, and by their enthusiasm attract the student. This is the secret of the successful lecturer, and for these reasons, the preliminary courses given, as they frequently are by the professors and the attachés of the school, upon favorite subjects, become quite as important to the student as the regular course, and we trust that they will continue to grow in favor, and that each school will attract to itself those young men whose ardor leads them to investigate for themselves any special subject, and that the students will show their estimate of this plan by a rigid attendance upon them."

The *Monthly* speaks in favorable terms of the hospital enterprise in connection with the New York Medical College under its new organization, and hopes that it will speedily find imitators. The idea is certainly a correct one, and we trust that the New York Medical College will be enabled to give it practicable shape. We are glad to observe the tendency to attach medical schools to hospitals.

The *Nashville Journal of Medicine and Surgery* for October furnishes little editorially worthy of comment, though we give place to the following, to which we would call the special attention of some of our own correspondents:

"We receive a great many letters which we cannot answer, because we do not know where they come from. A majority of people who write letters, in dating them, leave out the State. When a man writes from Philadelphia, New York, or Boston, he feels that it is not necessary to write after the names of these places, N. Y., Penn., Mass., for everybody knows where they are. But when he writes from Fisherman's X Roads, Quincey's Store, New London, or New Amsterdam, he ought to know that no one but himself and the postmaster know where these places are. The postmaster, too, as if bent upon not being outdone by the correspondent, affixes his post-mark in hieroglyphics that no one can decipher but himself.

"Some time ago we received a letter from Concord, ———. It was an important letter, and we were desirous to answer it. We examined the hieroglyphic post-mark. There were the dim outline of a ring across the stamp, and a C and O alone visible. We went to our post office, and learned that there were all sorts of Concords in more than half the States in the Union. We had to give it up, and no doubt had many *blessings* for our ungentlemanly conduct."

Correspondence.

New York, Oct. 15th, 1860.

Messrs. Editors:—In your publication of the mortuary returns of the principal cities of the United States, in tabular form, which was commenced in the first number of your fifth volume, you have, in my opinion, struck a most important vein; one which, if carried out thoroughly, will yield results of great value. It will, undoubtedly, cost you no little labor, time, and money, but you may be sure of a reward in the *gratification* which your readers will feel in having before them, every week, a perfect *coup d'œil* of the sanitary condition of the country. It is sincerely to be hoped that you will secure all the necessary facilities for this interesting work, from the various places, and though you may find a difficulty at first, and your tables may be incomplete for a while, the publication must gradually stimulate the health authorities of different localities to a willingness to place their records in your hands for such a collation. There are some places, perhaps many, where no returns of mortality whatever are made up, which, by your publication, may be made to see the interest and value which pertains to them. Among these instances may be mentioned so important a city as Albany, the capital of the most populous State in the Union. It has, I am told, no department to record the deaths of its inhabitants, and consequently no deaths are recorded; the numbers of its annual dead are unknown to its own authorities and inhabitants; no certificate of burial is required; its people may be slyly poisoned, or die from natural causes, and no one be the wiser for it, except the parties immediately interested, as the bodies quietly slip under the sod, without saying "by your leave" to any one. This careless and objectionable state of things ought to be stopped, if, for no other reason, than the danger to which the community is exposed, for want of a scientific appreciation of their own sanitary position; a result to which, I believe, your tables will conduce.

Another valuable result from them will be one for which many efforts have heretofore been made, in several ways, but especially by the American Medical Association, but with very partial, if any success, I mean the adoption of a uniform system of registration. This

is a great desideratum, and the discussion of that question in your columns, together with the presentation of such a form of tabulature of diseases, as your experience may suggest, is the most likely means of directing attention to the subject, and causing a proper scientific and comprehensive system to be generally adopted throughout the Union.

I would like to make one or two suggestions of improvement of, or rather addition to, your form of table, for adoption at the proper time. 1st. As soon as the recent census returns can be obtained, to give the population of each place in a permanent column. This will enable you to give the *ratio* of mortality, and so enable your readers to make a comparison of the state of the public health of each city with all the rest. A column, giving the ratio of some of the most important diseases, compared with the whole number, will also be a valuable addition.

2nd. Some authorities affect to believe that the still births do not constitute a proper element of estimate of the sanitary condition of a population, and therefore either omit entirely to report them, or put them in such a position as not to be included in the general result. Taking an opposite view of this question, I hope you will continue to give them their proper place in the table, and that you will urge your correspondents to include them in their reports to you. The grounds upon which this view is based are these: A still birth is the result of either crime or disease, (including accidents, malformations, &c.) It may be impossible to discover what proportion may be due to the former of these causes, but if we can know the whole number in all the cities reported, we certainly have a basis for some calculation of the general state of the morals of any particular community in this respect.

As regards the still births due to natural causes, I regard them as very important indices of the health of the female part of the population. They tell of the mode of living, of the results of physical education, of the capacity for child bearing, of the value of professional interference, and other points of much interest to the welfare of the people, and are, moreover, a measure of the future strength of the State, for a still born child is as much of a loss as one that dies after birth. The increase of population of most places (in fact of all places not affected by immigration) is limited to the capacity of its females to become mothers: hence it is very easy to see that *incapacity* in that respect must reduce the population of a place, *pari passu*, and of that incapacity, the number of still births may be, of some particular locality, an important index. Besides this, I can name one large city whose registering officer has recently adopted the plan of throwing out these figures, in order to give a better *comparative* appearance to the mortality returns; this official should, to be consistent, go a step further, and reject those deaths occurring within a few days after birth, as having no connection with the state of the *public* health,—and upon the same argument he might leave out all occurring within a year. Let the principle be universally adopted that no dead body should go unrecorded, and there can no harm result, while all will be better satisfied.

3d. Another item which should be recorded is one whose importance has been recently elucidated very forcibly by Dr. E. M. Snow, of Providence, R. I., and which he now regularly reports. It is the *parentage* of the decedents.

It is evident, on reflection, that the *nativity* does not always give a fair representation of the facts. You cannot have a better illustration of the value of this idea, than from the following quotation from the September report of that eminent statistician:

"The mortality in September affords a good illustration of the difference between Nativity and Parentage in these statistics. The average age of those who died was as follows:

According to Nativity or Birth-place:

American nativity, 84 deaths; average age, 16.5 years.

Foreign nativity, 10 deaths; average age, 44.3 years.

According to Parentage:

American parentage, 50 deaths; average age, 26.5 years.

Foreign parentage, 44 deaths; average age, 11.4 years.

If we deduct from the 44 persons of foreign parentage the 10 who were born in foreign countries, we have 34 children born in this country of foreign parents who died during the month. The average age of these 34 children was *only one year and eight-tenths.*

Of the 23 children who died of cholera infantum in September, all were of American nativity; but only 7 were of American parentage, while 16 were of Irish parentage."

I have prolonged my letter beyond my expectation at the commencement, and yet the topic is not exhausted. Take my hurried droppings for what they are worth, while I remain, very respectfully,

Yours,

Jno. H. Griscom.

MEDICAL INSTITUTIONS IN DUBLIN.

Philadelphia, Sept. 21, 1860.

Messrs. Editors:—In your issue of the 8th inst., I have seen a letter dated "Cork, August 19th," and signed "M. D. Abroad," purporting to convey an idea of the amount of medical and surgical relief afforded to the sick poor of Dublin and vicinity, drawn from a short visit made by the writer to one of its hospitals and from what he saw therein. As "M. D. Abroad's" letters to the Reporter are, I presume, published with the view of giving its readers a true

description of the prominent medical institutions examined by him in the various European cities through which he has traveled, it may not be amiss to draw attention to some inaccurate statements in his letter with regard to the only hospital in Dublin which he visited, as well as to his omission of the names of most of the noble medical institutions in that city, of whose existence he does not seem to be even aware.

As to St. Vincent's Hospital, he says, "It is, I believe, not quite as large as Steven's Hospital;" and again, "it is now capable of accommodating nearly one hundred patients," &c.—the precise facts being, that, so far back as the year 1852, St. Vincent's Hospital contained exactly one hundred beds, besides a large ward for the reception of children, on the plan of the "Enfans Malades," in Paris, whilst Steven's Hospital, established in 1720, contains *over* two hundred beds, besides distinct wards for venereal patients. St. Vincent's Hospital is visited every morning at eight o'clock by the physicians, surgeons, and pupils, and clinical instruction is daily given to the latter at the bed-side of each patient, besides the regular clinical lectures twice a week. Your correspondent mistakes when stating that "St. Vincent's Hospital is in the hands of the Roman Catholics;" for, although attended by the Sisters of Charity, who act as nurses, the entire medical staff, including the consulting as well as the visiting physicians and surgeons, is, with a single exception, composed entirely of Protestants, amongst whom, by the way, was the late Dr. O'Brien Bellingham, whose name will be ever associated with the treatment of aneurism by compression as long as surgery continues to be cultivated as a science. The Royal Hospital, to which your correspondent alludes, can scarcely be called a public hospital, as it admits none but disabled or superannuated sailors, whilst the Military Hospital, as its name implies, is intended exclusively for that branch of the public service. The Workhouse or "Union" Hospitals, of which there are *two* very large ones, viz: the North and South Dublin Union Hospitals, are solely occupied by patients who are received from the workhouses only, and who, therefore, must be reduced to the condition of "paupers, whom nobody owns," before being entitled to admission.

Besides the above-named hospitals, "M. D. Abroad," if he only had a little more time to spare, could have seen, in Dublin, the following hospitals and other medical and surgical institutions, viz: The City of Dublin Hospital, established in 1832, containing 62 beds, besides two large wards for diseases of the eye, under Dr. Jacob, and one large ward for uterine diseases, under Dr. Beatty; the Meath Hospital, established in 1774, contains 100 beds; the Rathdown Fever Hospital, established in 1835, contains 26 beds; the Hospital for Incurables, established in 1740, contains 100 beds; the General Hospital of House of Industry, established in 1803, contains 300 beds; the National Eye Infirmary, established in 1814, contains 6 beds; Mercer's Hospital, established in 1734, contains 60 beds; Jervis Street Hospital, established in 1721, contains 80 beds; Maison de Santè, established in 1816, contains 12 beds; St. Mark's Ophthalmic Hospital, established in 1844, contains 20 beds; Simpson's Hospital, established in 1779, contains 70 beds; Sir Patrick Dunn's Hospital, established in 1808, contains 60 beds; Westmoreland Lock Hospital, established in 1792, contains 80 beds.

In addition to these, there are four lying-in hospitals, viz: the Anglesea, established in 1828, contains 10 beds; the Combe, established in 1826, contains 40 beds; the Rotunda, established in 1757, contains 140 beds, and averages 2,000 deliveries per annum; the South Eastern, established in 1834, contains 25 beds.

At every one of the above hospitals, clinical instruction is given daily, as well as regular clinical lectures twice each week.

There are also in Dublin six general dispensaries, from which patients receive daily advice and medicine, as well as medical attendance at their homes; the average number of patients treated at these institutions for the last thirty years, (not including the hospitals,) amounts to 72,510 per annum. Besides, the two Universities mentioned by your correspondent, viz: Trinity College, and the Queen's University, (by the way one of the three colleges connected with the latter is, ludicrously enough, located by your correspondent at Glasgow,* which is a city in Scotland, instead of Galway, in Ireland,) Dublin contains the King and Queen's *College of Physicians*, an institution which has a "local habitation" as well as a name; the Royal College of Surgeons; and the Apothecaries' Hall.

In conclusion, I need scarcely refer to a fact well known and fully acknowledged, at least on the other side of the Atlantic, viz: that the medical colleges and universities of Dublin rank amongst the very highest in Europe as schools of medicine and surgery, whilst the numerous hospitals of that ancient city "containing only abont one-tenth of the population of London, or not quite half that of Philadelphia," stand forth as noble monuments of the benevolence and philanthrophy of the Irish medical profession, most of them having been founded, or partly endowed by members of the body.

I remain, gentlemen, your obedient servant,

M. D. at Home.

Cholera, of a malignant character, after existing some time in the southern part of Spain, is now affecting the troops at Gibraltar.

*This was a typographical error.—Editors M. & S. Reporter.

THE COLLUSIONS BETWEEN PHYSICIANS AND APOTHECARIES.

Philadelphia, Oct. 17th, 1860.

Messrs. Editors:—

I have been pleased to see that my letter, calling your attention to a vicious collusion between physicians and apothecaries, has, in "*Esprit des Lois,*" attracted to the cause a spirited ally. I hope that this will not be the end of the agitation, and that it may terminate in the exposure of the guilty and the abandonment of the contemptible practice alluded to. This presenting of the "spirit" and letter of the "law," as quoted, may be beneficial to some who were perhaps not aware that their conduct made them amenable to rigorous punishment and disgrace.

That the vice was ever prevalent among "the best and most respectable apothecaries, and among some of our most distinguished and influential physicians and surgeons," is making a charge which surprises me, and seems rather to extenuate the guilt of the lesser, and more obscure sinners, who are now complained of.

The practitioner to whom I alluded as an illustration of the vice, is not a member of any medical organization, and I cannot point out any member of a medical society whom I know to be certainly in the habit. I did not intend to imply that the villainous collusion exists more particularly in a northern suburban neighborhood, but desiring to present my own observation of the matter, I did allude to its prevalence to some extent in that direction. I am not a resident of a northern suburb, but from the knowledge of very many of the practitioners of the northern section of the city, I consider their professional tone to be generally as high as that of any central or southern locality.

It is probable that the practitioners who are leagued pecuniarily with druggists, are rarely members of a medical organization, and cannot be made liable to censorial action. Such, however, when known, are entitled to no professional courtesy, and should not be tolerated in consultations. As regards druggists in the collusion, when not under the controlling influence of a pharmaceutical society, the remedy can only be in carefully avoiding the patronage of their stores.

It is hoped, now that attention is attracted to the subject, that a watchful scrutiny will be exercised, by which any mercenary arrangement between physicians and druggists will be detected, and that the wide-spread influence of the Reporter will continue to aid in its exposure.

Esprit de Corps.

NEWS AND MISCELLANY.

OPENING OF THE CLINIC OF THE PHILADELPHIA HOSPITAL—DR. LUDLOW'S INTRODUCTORY ADDRESS.

The course of Clinical Instruction at the Philadelphia was resumed on Saturday last. The recent action of the Board of Managers in opening the wards of the hospital, free of charge, promises, judging from the large attendance on Saturday, to be profitably appreciated.

The students were welcomed by a spirited and instructive address from Dr. J. L. Ludlow, one of the physicians of the hospital.

Dr. Ludlow congratulated his audience "that Philadelphia can still attract so many from an extended and extending country," and referred with pride to the medical institutions which are everywhere dotting our fair land, fostered by the influence of our matchless government. After some patriotic allusions to the broad field of science and literature upon which all the sons of a common country might reap the rich harvest of knowledge, and deprecating the attempts of those who would contract our limits to a "Pent up Utica," Dr. Ludlow announced, as the subject of his address—"The motives which induce young men to pursue the study of Medicine." The speaker observed that, for one unacquainted with the affairs or passions of the world, or who had not studied well human nature in all its phases, it might be presumptuous to attempt to penetrate the innermost recesses of the soul, or tell us motives which govern the actions of men; but if we believe with the poet, "That the study of mankind is man," we are often enabled to dash the mask from the face of every deceiver, and by their deeds determine the motives which impel them to action, and from close inspection of, and deduction from, their motive, we are prepared to "play the prophet too."

All act from motives. Sometimes we may think, or try to make others think, we are acting from one motive, but in the sequence our actions determine that we are acting from a different one, and taking a large class together, and carefully watching their tone and actions, it requires no omnicient being to decipher the motives for the deeds performed, and in judging motives in this way, our profession will not suffer in comparison with any other. "By their fruits we shall know them." If any young man entered upon the study of medicine from *hereditary motives*, he will certainly fail, and the sooner he abandons the idea the better. There is no hereditary transmission of knowledge. Kingdoms may be handed down from father to son, but in the world of letters all are republicans. "In medicine we are princes by right of intellect, not because we have emerged from a royal

womb." If any commence the study of medicine merely for the *title*, it would be much better for them to assume it at once, without subjecting themselves to unnecessary trouble. Many a sickly, feeble and tottering institution in our country, would confer it for a small endowment, less than it would cost to acquire a thorough knowledge of medicine. Without even knowing the applicant, the title of LL. D. has been thus bestowed, and there is no reason why M. D. should fare better.

Those who espouse the profession of medicine *merely* for *position in social life*, must have forgotten that "Worth makes the man, the want of it the fellow." *Mercenary motives* induce another class to enter our profession. The acquisition of wealth in an honorable and laudable manner no one can object to. It is a powerful instrument in doing good, and incurs great responsibilities, as the rich man must give a strict account of his stewardship. We cannot affect indifference to money, but he who enters the portals of our profession with this motive alone, if he observes all the points of etiquette which the professional code enjoins, will soon find that no California, with its golden mines, will end his journey, and if he does soon begin to be rewarded for his labors, he becomes restless and reckless, and throws aside the restraints of professional etiquette, and espouses the most promising delusion of the day, and bewildered by the magnificent equipage and palatial dwelling of the quack, he soon forgets his Hippocratic oath, and becomes a hypocrite in the worst sense of the word. If any enter with the idea of making a fortune, be warned in time to go home—be a merchant—a planter—a farmer—anything but a doctor. He threw no obstacles in the way of those who have commenced the study of medicine for the purpose of perfecting their general education. Its various relations with the collateral sciences, and the various fields of inquiry into which it would lead them, he knew would improve their faculties, and make them wiser and better men.

Dr. Ludlow then remarked that the grand, the glorious, the foremost inducement which influenced, and is still influencing, so many to choose our profession, *is the benefit to humanity*—the greatest amount of physical and mental relief to the greatest number. Some cavilers may deride this idea. To them the almighty dollar is the governing principle—the "sine qua non" of their existence; and they will often turn and ask, "If you are so humane, why take a fee?" It is written in Holy Writ, that those who preach the Gospel should live by the Gospel. The good to be done to humanity does not imply that we should be paupers. It is no humanity to render a man mean, stingy, and miserly; it is only the miser, the trickster, and the dishonest man who would ask us to render services to them without ample remuneration, according to the means they possess.

The speaker referred to the great boon which the skillful physician conferred upon his patients, and doubted whether he could ever be fully renumerated, so far as dollars and cents were concerned. Can money pay the physician who stands by the couch of an apparently dying loved one, and with skill and tact and tenderness, governed by an accurate knowledge of the disease, wards off the fatal shaft of the insatiate archer? Can gold or silver be a recompense to the sagacious surgeon who, with matchless dexterity, guards muscle and tendon and artery and nerve, as he dissects some malignant growth, which is sapping the very existence of his patient, and when the sick man walks forth restored to his wonted health in the bouyancy of his manhood? Can money ever pay the man who has been the instrument of prolonging his days and adding years to his existence, and dispersing the dark cloud which hap long hung over him? Humanity alone has induced those who have gone before you to labor in sunshine and storm, through long days and weary nights, mid pestilence and plague and famine—in the hospital and in the hut—in the cabin and by the way-side—in season and out of season—with only the idea of doing good. Reckless of themselves and those to whom they were bound by the ties of nature and kindred, like heroes they looked for the fiercest of the fight, and boldly rushed on when cities were appalled and nations trembled for its people—when the stalwart man and the puny infant—when the man of wealth and the humble pauper are alike stricken down—when pestilence ravages the land and turns kingdoms into huge charnel houses—then the eyes of all are turned to us for succor; then we go forth to battle—our flag is thrown to the breeze, and upon it is inscribed, in letters of light, HUMANITY! This motive for becoming physicians embraces all others, except the mercenary. Do you desire the title of Doctor? It is justly yours. Social position? You have gained it. A branch of general education? You possess it. But of money you most probably have very little. But what of that?

I believe that you have devoted yourself to the study of medicine from the highest motives; that you have counted the cost, and are willing to abide the result; that you will not lack the necessary appliances for perfecting yourself in your studies, the reputation of our colleges and their professors bear me out. To minister at the bed-side of the sick and the dying, is the humble privilege and duty of the physicians of this institution. No motive, except that of doing good commands our services.

The Board of Management of this institution, acting from the same impulse, give their time and attention, and, with a feeling that this institution may be useful to you in preparing yourselves for the arduous duties of your profession, have thrown open its wards for bed-side

instruction without fee or reward. It remains with you to avail yourselves of these privileges, and profit by them.

Army and Navy.—Surgeon R. H. Coolidge will be relieved from duty in the Surgeon-General's Office on the first of December next, and will then proceed, via Panama, to the Head-Quarters of the Department of California, and report for duty, as Medical Surveyor for the Departments of California and Oregon. Surgeon Coolidge will be assigned to Benicia Barracks.

Surgeon R. Murray will be relieved from duty in the Department of California on the arrival of Surgeon Coolidge, with directions to repair to Baltimore, Md., and report thence, by letter, to the Surgeon-General for further orders.

Assistant Surgeon C. H. Smith has been assigned to duty in the Surgeon-General's Office, and ordered to report in person to the Surgeon-General as soon as his present duties in Baltimore are completed.

Duration of Life.—It is asserted that the average length of life in France before the Revolution of 1793 was twenty-eight years; and that at the present time it is thirty-seven years. M. de Lapasse assures us, that if we would only live reasonably, we should reach to an average of 150 to 200 years! This is what he calls the natural length of life. "The life of warm-blooded mamiferæ is subject to an invariable law; the duration of their existence appears to be equal to ten times the period of their growth. It is thus with the elephant, the ox, the cat, the dog, and the quadrumana. Two mamiferæ are the only exceptions; the horse and the man. And why? It is because they are slaves,—the one of the dire condition of work, and the other of his passions and the necessities of his social condition.—*Med. Times and Gaz.*

The American Journal of Indigenous Materia Medica, and Repertory of Medical Science is the title *in extenso* of a journal announced to be issued next month in New York. We suppose that it is intended as simply an advertisement of the publishers, who are dealers in drugs.

Medical Witnesses.—Judge Marsh, of Ohio, has decided that no medical witness can be compelled in court to give testimony involving a breach of professional confidence, and yet the statutes of that State only exempt clergymen and lawyers in express terms.

We are gratified to observe the name of Dr. John Ordronaux in nomination for the Legislature of the State of New York, from a district in the immediate vicinity of New York city. He is a gentleman of excellent attainments in both the professions of medicine and law; has an excellent personal and hereditary record; and is gifted with an eloquence rarely found in our ranks, and seldom excelled at the bar. His fellow-citizens will render a just tribute to modest worth and the cause of humanity by his election, to whatever party he may belong.

Prof. Titus Deville, of Lind University, has resigned the Chair of Anatomy here and returned to Paris. His place is filled by Dr. J. Hollister, while the Chair of Materia Medica and Therapeutics is occupied by Dr. A. L. McArthur, a new member of the faculty.

Answers to Correspondents.

D. McC.—When we supply vaccine virus to subscribers, it is always without charge. We can generally oblige by sending it when requested; and when practitioners have an excess of fresh and reliable virus, they can do a favor to some members of the profession, and a benefit to the community, by enclosing it with a record of the date of its procurement, to this office. There is a demand for vaccine virus at this time.

MARRIAGES.

Henry—Rand—On Tuesday morning, October 2, at the residence of the bride's father, Maysville, Ky., by the Rev. C. McKinney, T. Charlton Henry, of Kentucky, (late Assistant Surgeon U. S. Army,) to Lucie C., only daughter of Jacob W. Rand, Esq.

Hance—Rusling—On the 4th inst., at the residence of the bride's father, by Rev. E H. Stokes, Edmund Hance, M. D., to Annie M., eldest daughter of Gershom Rusling, Esq., all of Trenton.

DEATHS.

Mack—At Pennsgrove, N. J., on the 20th ult., Thomas D., youngest son of Dr. J. M. and Emily D. Mack.

Communications Received.—*Connecticut*, Dr. G. A. Moody, (with encl.,) Dr. F. A. Hart, (with encl.,) Dr. C. C. Foote, (with encl.)—*Delaware*, Dr. J. D. Craig, (with encl.,) Dr. J. Hopkins, (with encl.)—*Illinois*, E. D. Gates, Dr. J. M. Mack, Dr. E. C. Ellet, (with encl.,) Dr. R. L. Rea—*Iowa*, Dr. B. Hinchman, (with encl.)—*Kentucky*—Dr. R. D. Porter, (with encl.,) Dr. N. H. Baker—*Missouri*, Dr. F. V. Brokaw—*New Jersey*, Dr. L. S. Blackwell, (with encl.)—*New York*, Dr. T. C. Brinsmade, (with encl.) Drs. Allen and Rogers, (with encl.,) Mr. W. E. Chapman, Dr. M. E. Murphy—*Ohio*, D. W. Brinkerhoff, (with encl.,) Dr. G. Liggett, (with encl.)—*Pennsylvania*, Dr. B. Musser, (with encl.,) Dr. W. Reichardt, (with encl.,) Dr. J. Levergood, (with encl.,) Dr. F. H. Bower, (with encl.,) Dr. G. W. Burke, (with encl.) Mr. J. Hulme, Dr. G. W. Smith, Dr. H. F. Martin, (with encl.,) Dr. S. B. Himer, Dr. N. S. Marshall—*South Carolina*, Dr. R. Wilson—*Tennessee*, Dr. T. M. Woodson, (with encl.) —*Vermont*, Dr. B. W. Carpenter.

Office Payments—Dr. G. R. Lewis, (Pa.,) Dr. B. M. Collins, (Pa.,) Dr. J. S. Thornton, (Pa.,) Dr. M. M. Manly, Dr. J. Rohrer, D. J. A. Meigs, Dr. E. B. Vandyke. By Mr. Swaine: Drs. Posey, Cox, Corse, McLerney, Garretson, Reese, Coad, Smith, Wittig, Craig, Trau, Price, Hunt, Griscom, Fricke, Lessey, Winckler, Ashton, H. St. Clair Ash, and Crew & Co.

MORTALITY OF CITIES DURING THE WEEK ENDING OCTOBER 6, 1860.

Number, Sex, Nativity, and Age.	Philadelphia.	New York.	Baltimore.	New Orleans.	Boston.	Chicago.	Cincinnati.	Charleston.	Providence.	Buffalo.	St. Louis.
Whole number of deaths	219	422	81	.....	76	.....	.....	41	.....	.....	106
Males	118	.....	51	.....	39	.....	.....	.....	.....	.....	60
Females	101	.....	30	.....	37	.....	.....	.....	.....	.....	45
Sex not stated	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	105
Whites	.....	.....	65	.....	.....	.....	.....	20	.....	.....	1
Black and colored	.....	.....	16	.....	.....	.....	.....	21	.....	.....	.....
United States	168	263	.....	.....	.....	.....	.....	.....	.....	.....	.....
Foreign countries	41	157	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nativity unknown	10	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
Parentage.											
American	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Foreign	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ages.											
Under 5 years	98	191	41	.....	35	.....	.....	15	.....	.....	56
5 to 10 years	20	22	6	.....	6	.....	.....	3	.....	.....	.....
10 to 20 "	14	19	1	.....		.....	.....	2	.....	.....	.....
20 to 50 "	54	133	18	.....	35	.....	.....	10	.....	.....	.....
50 and over	33	55	15	.....		.....	.....	11	.....	.....	.....
Unknown	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
Causes of Death.											
Zymotic Diseases.											
Croup	4	9	1	.....	3	.....	.....	1	.....	.....	1
Cholera Infantum	1	17	4	.....	3	.....	.....	.....	.....	.....	4
Cholera	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cholera Morbus	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1
Diarrhœa	.....	11	.....	.....	2	.....	.....	1	.....	.....	8
Diphtheria	10	1	.....	.....	2	.....	.....	1	.....	.....	4
Dysentery	2	7	.....	.....	2	.....	.....	.....	.....	.....	.....
Erysipelas	3	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fever, remittent	.....	4	1	.....	.....	.....	.....	.....	.....	.....	4
Fever, intermittent	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
" pernicious	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4
" typhoid	1	8	2	.....	3	.....	.....	.....	.....	.....	.....
" typhus	1	13	.....	.....	.....	.....	.....	1	.....	.....	9
" scarlet	32	22	3	.....	2	.....	.....	.....	.....	.....	1
" yellow	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....
Hooping Cough	.....	4	4	.....	3	.....	.....	2	.....	.....	2
Measles	1	1	.....	.....	1	.....	.....	.....	.....	.....	.....
Small-pox	1	1	2	.....	.....	.....	.....	.....	.....	.....	.....
Sore Throat, putrid	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
Respiratory Organs.											
Bronchitis	1	3	2	.....	2	.....	.....	1	.....	.....	1
Congestion of Lungs	3	3	.....	.....	2	.....	.....	1	.....	.....	4
Consumption	32	58	12	.....	8	.....	.....	4	.....	.....	9
Pneumonia	9	18	5	.....	2	.....	.....	.....	.....	.....	.....
Hemorrhage from Lungs	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pleurisy	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....

Causes of Death.	Philadelphia.	New York.	Baltimore.	New Orleans.	Boston.	Chicago.	Cincinnati.	Charleston.	Providence.	Buffalo.	St. Louis.
Nervous System.											
Apoplexy	2	8	.....	.....	1	.....	.....	.....	.....	.....	1
Convulsions	12	22	1	.....	5	.....	.....	4	.....	.....	17
Congestion of Brain	2	9	2	.....	.....	.....	.....	2	.....	.....	4
Disease of Brain	4	1	.....	.....	1	.....	.....	.....	.....	.....	.....
Delirium Tremens	4	2	1	.....	.....	.....	.....	.....	.....	.....	.....
Epilepsy	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hydrocephalus	4	10	3	.....	5	.....	.....	.....	.....	.....	.....
Inflammation of Brain	3	12	1	.....	1	.....	.....	2	.....	.....	1
Paralysis	4	5	.....	.....	1	.....	.....	.....	.....	.....	.....
Tetanus	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Circulatory System.											
Aneurism	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Disease of Heart	6	6	2	.....	1	.....	.....	.....	.....	.....	.....
Phlebitis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Digestive System.											
Disease of Liver	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....
Gastritis	.....	3	.....	.....	1	.....	.....	.....	.....	.....	.....
Hepatitis	.....	3	1	.....	1	.....	.....	1	.....	.....	.....
Inflammation of Throat	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Intussusception	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Inflam. of Bowels	5	10	1	.....	1	.....	.....	1	.....	.....	2
Marasmus	10	40	.....	.....	2	.....	.....	2	.....	.....	4
Peritonitis	2	.....	.....	.....	.....	.....	.....	1	.....	.....	.....
Urinary Organs.											
Albuminuria	.....	4	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diabetes	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Disease of Kidneys, Bladder, and Urethra	2	2	1	.....	1	.....	.....	.....	.....	.....	.....
Diseases of Uncertain Seat.											
Abscess	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cancer	.....	3	.....	.....	1	.....	.....	.....	.....	.....	.....
Dropsy	5	5	5	.....	.....	.....	.....	.....	.....	.....	1
Debility, etc.	25	13	.....	.....	2	.....	.....	.....	.....	.....	3
Fever	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Scrofula	1	2	.....	.....	2	.....	.....	.....	.....	.....	.....
Puerperal Diseases.											
Hemorrhage	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Convulsions	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....
Fever	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diseased Womb	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
External Causes.											
Accidents	9	18	.....	.....	1	.....	.....	.....	.....	.....	2
Poisoning	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Suicides	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Stillborn	10	23	9	.....	12	.....	.....	14	.....	.....	8
All other causes	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1